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# Smart Cities Engagement

**Thought Exchange Data by Theme**

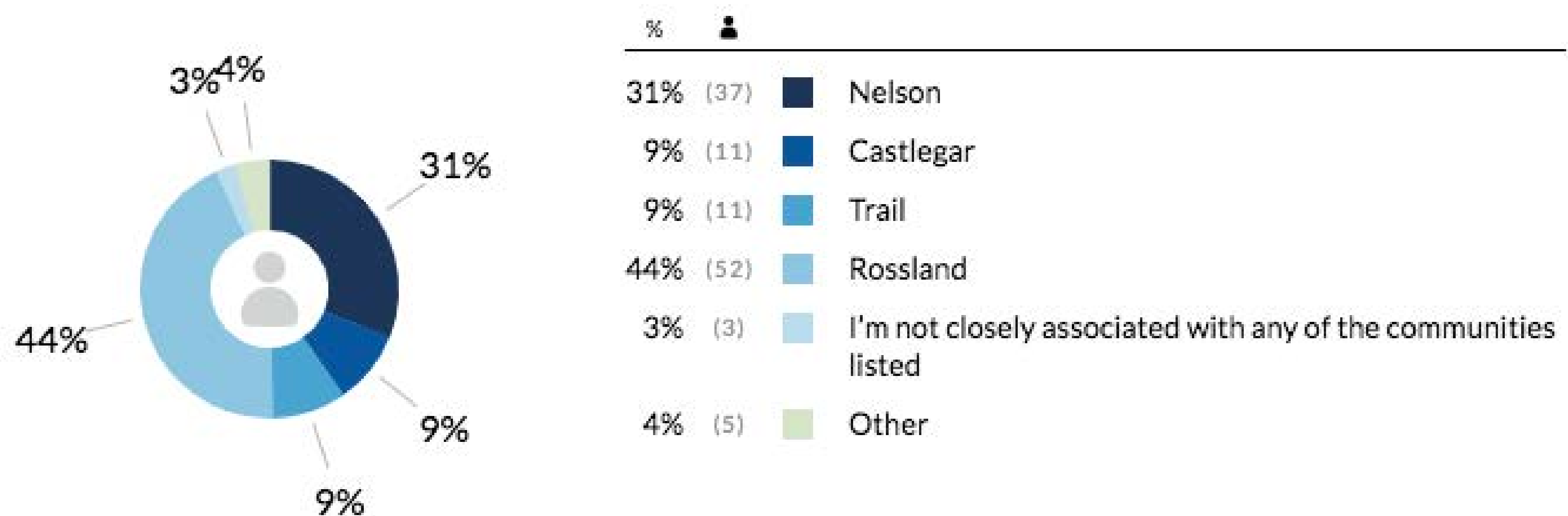
**March 2018**

## THOUGHT EXCHANGE QUESTION

What are some ways data and connected technology could be used in the West Kootenays to address local challenges facing residents?



- **DQ1** Which larger community are you most closely associated with:

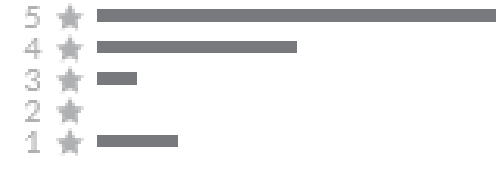


# TRANSPORTATION

**Reliable air access is a challenge. New technologies can increase the frequency of safe landings and departures.**  
A healthy, growing local economy needs to have reliable air access for citizens, businesses, newcomers and visitors.

4.2 ★★★★★ (18)

Ranked #1 of 113

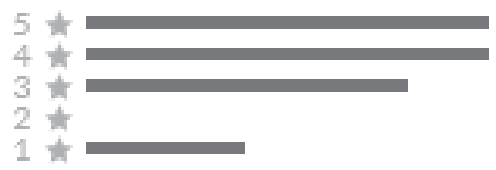


## Knowledge of daily travel patterns

Improve transportation services to primary employers and recreation hubs

3.7 ★★★★★ (16)

Ranked #21 of 113



## Real time weather and road updates

So we all know whether to get up the hill or avoid the trip to another city that can wait.

3.6 ★★★★★ (26)

Ranked #29 of 113



## Better rural transportation networks.

3.5 ★★★★★ (27)

Ranked #42 of 113

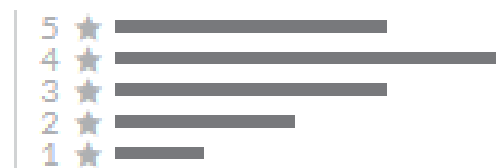


## ride sharing platform

need to reduce the # of vehicles being used, but we don't have the numbers to justify expanded public transport

3.5 ★★★★★ (27)

Ranked #45 of 113



## Improve local weather data gathering and analysis

To better understand the effects of climate change to our local area.

3.1 ★★★★★ (16)

Ranked #87 of 113

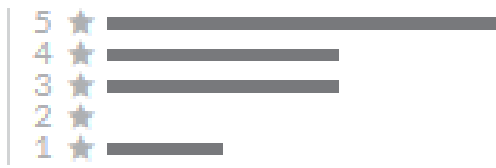


## Tracking and broadcasting weather and road conditions

Increased public safety, and awareness and assisting the timely flow of goods and services

3.8 ★★★★★ (17)

Ranked #13 of 113

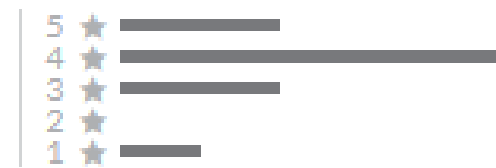


## Kootenay ride share program

Given that there is somewhat poor bus service it might be helpful if a ride share program existed to help people get to the larger towns in the area

3.7 ★★★★★ (10)

Ranked #25 of 113

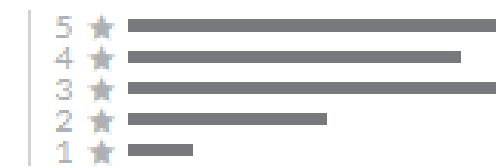


## A map showing road conditions in specific places, eg within Rossland city limits to help residents determine safest plowed routes in Winter.

A bit like they have at Blackjack showing which trail has been groomed, only in this case showing which road has been plowed.

3.6 ★★★★★ (21)

Ranked #31 of 113



## If done properly could improve air transportation

lack of access to region is often cited as a weakness here.

3.5 ★★★★★ (27)

Ranked #43 of 113

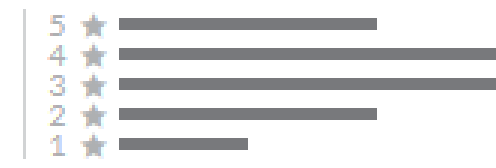


## More accurate and localized winter weather updates in and between communities .

Allow for traffic or condition updates that are quicker and more effective .

3.3 ★★★★★ (22)

Ranked #73 of 113



## Errand runs

Build community through grabbing an item or two from a place we are already going for another person in town. Common drop off spot may be necessary.

2.8 ★★★★★ (27)

Ranked #92 of 113

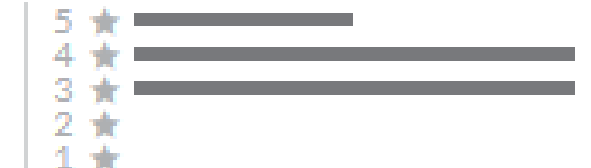


## Improve transportation links between communities

Improves access to work, services and amenities

3.8 ★★★★★ (5)

Ranked #16 of 113



## Transportation conditions

We've seen a huge increase in accidents and news stories about the highways between our local communities in the winter.

3.7 ★★★★★ (7)

Ranked #27 of 113



## Reliable air transport

to attend training, to bring in speakers, to see loved ones, to bring economic generators to the area....

3.6 ★★★★★ (11)

Ranked #38 of 113

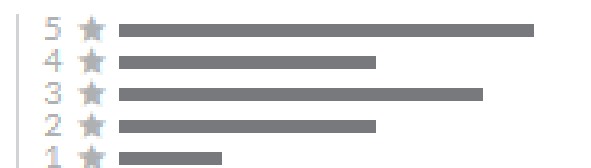


## Shared transport

A safe way to carpool or share rides between cities and to/from extracurricular activities

3.4 ★★★★★ (27)

Ranked #59 of 113



## Adaptive traffic signals

More efficient roadways

3.1 ★★★★★ (26)

Ranked #84 of 113



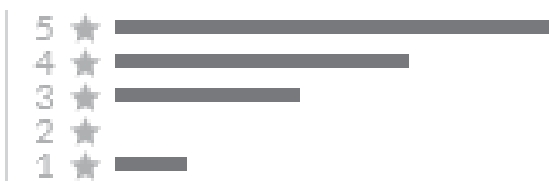
# TECHNOLOGY ENABLED / REMOTE WORKFORCE / CONNECTIVITY

## Opportunities for remote work

Attract more tech & knowledge workers that can bring stable employment and spend their salaries locally.

4.0 ★★★★★ (27)

Ranked #2 of 113

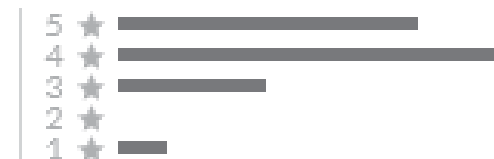


## Remote business opportunities and remote work activities.

Accessing services and doing work remotely can increase populations in rural areas.

4.0 ★★★★★ (18)

Ranked #7 of 113



## Finding quality jobs in Nelson is difficult when it comes to career opportunities

Data and technology is the future and could provide many locals in Nelson a great career opportunity without moving away or taking pay cuts.

3.9 ★★★★★ (17)

Ranked #9 of 113

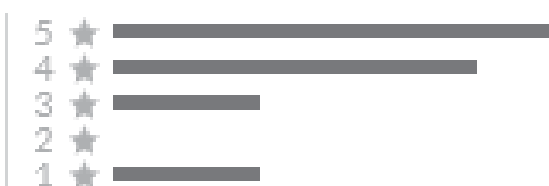


## remote workforce opportunities

reduction of carbon footprint; less overhead, fuel/power consumption; wear/tear on infrastructure

3.9 ★★★★★ (15)

Ranked #10 of 113



## Stimulate the local tech community with grants, competitions, hackathons and opportunities to work with the city to address complex local issues.

Innovation needs incentive and incubation to get going and keep going and Nelson can leverage the existing skills and creativity of local tech workers

3.8 ★★★★★ (8)

Ranked #15 of 113

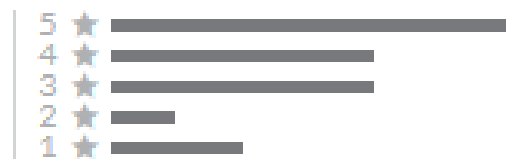


## Connectivity can reduce the need for bricks and mortar as people chose alternate work arrangements - be that home or coffee shop

City centres can be re-purposed which will lead to economic development.

3.6 ★★★★★ (17)

Ranked #33 of 113



## Knowledge workers will come to work here, bringing new ideas and vigor to our area.

We are sometimes trapped in the paradigm we know. New ways of doing things disrupt the old ways paving the path for innovation.

3.6 ★★★★★ (16)

Ranked #34 of 113



## More remote job opportunities

Less travel will reduce GHGs; more economic opportunities

3.6 ★★★★★ (8)

Ranked #41 of 113

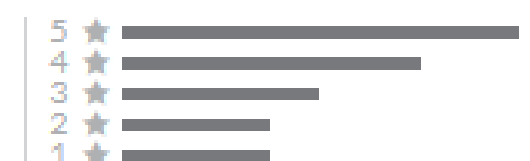


## Better technology infrastructure will enable those of us working from home to work from home

Speeds and intermittent ability of internet in town is not workable for remote workers

3.5 ★★★★★ (24)

Ranked #48 of 113



## Data and tech will have a role in all residential, community and career so is best to provide infrastructure and planning towards this way of thinking

If we ignore this way of life, we will be left in the dust

3.5 ★★★★★ (17)

Ranked #50 of 113

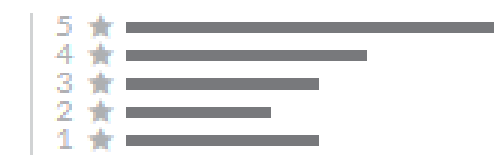


## Universal wifi within the immediate area

Keeping the community connected over a large geographic area

3.4 ★★★★★ (24)

Ranked #64 of 113

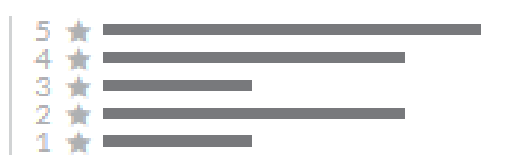


## Knowledge work these days involves a lot of data analysis.

Organizations are starting to realize that data digging can be done anywhere and the most important aspect lies in the adept interpretation of data

3.4 ★★★★★ (17)

Ranked #67 of 113



## Broadband in remote locations

Many still live without internet access, or have limited access. In todays economy, this is now an essential service

3.3 ★★★★★ (7)

Ranked #76 of 113



## Community-owned internet provider.

Rural internet is typically slow and expensive.

2.7 ★★★★★ (17)

Ranked #98 of 113



## Things are changing rapidly, faster than ever before. We need to prepare for the 4th industrial revolution now.

We cannot at this point envision all the changes but we can say a lot of it will depend on data transfer and thus connectivity is critical.

3.2 ★★★★★ (15)

Ranked #81 of 113



# ECONOMIC DEVELOPMENT

## Increase opportunities for new/modern business.

Create important new job opportunities in the community.

3.7 ★★★★★ (24)

Ranked #18 of 113



## Sharing data and having connected technology could give us a business advantage

It would help to attract new business and help existing businesses grow

3.6 ★★★★★ (25)

Ranked #30 of 113



## Tracking economic and growth measures by community, region and province

It would allow communities to plan for greater economic diversity, and as such, greater resilience.

3.6 ★★★★★ (14)

Ranked #37 of 113



## Economic development

Data can assist in marketing and technology can allow people to work wherever.

3.5 ★★★★★ (26)

Ranked #46 of 113



## shared data and connected tech could open up new business opportunities

Need to attract viable businesses to our area.

3.5 ★★★★★ (26)

Ranked #47 of 113



# OPEN DATA / DATA SHARING

**sharing data and technology could greatly improve municipal operations: help track water usage and conserve for example. Help identify sewer issues**  
 Help reduce the cost of municipal services and identify needed repairs.

4.0 ★★★★★ (27)   
 Ranked #3 of 113

**The small local governments in the West Kootenay Region could share data services and get economy of scale**  
 we are all so small but there is power in greater numbers

3.8 ★★★★★ (27)   
 Ranked #12 of 113

**Our region can become the very best in the world on how we collect and share data.**  
 We will make better decisions and save mountains of time trying to find this data.

3.5 ★★★★★ (10)   
 Ranked #56 of 113

**Share data on Power consumption, water use, cost of living, etc.,**  
 So residents understand where their \$\$\$ are spent and for what.

3.3 ★★★★★ (22)   
 Ranked #74 of 113

**Local gov and local businesses could share data and connected tech to increase buying power and make bulk purchases**  
 could be a cost savings

3.9 ★★★★★ (26)   
 Ranked #8 of 113

**Publication of 'public' data in easily accessible formats**  
 Inform the public about government objectives and current status

3.5 ★★★★★ (27)   
 Ranked #44 of 113

**connecting residents with local community data**  
 events, facility availability and other information that is hard to find and in many places

3.4 ★★★★★ (26)   
 Ranked #61 of 113

**Make Nelson city data available online as open data**  
 It encourages and enables the cities tech savvy residents to innovate and help the city find useful ways to make use of this public data

3.2 ★★★★★ (9)   
 Ranked #82 of 113

**Allow real-time access to City financial information**  
 Citizens should be able to see the same information available to City Councils if they want (few will want, but that's not the point)

3.1 ★★★★★ (16)   
 Ranked #86 of 113

**Community engagement**  
 Better engagement between residents and municipalities would bridge the growing divide, give transparency to see where tax dollars go

3.9 ★★★★★ (7)   
 Ranked #11 of 113

**Smart cities leads to smart buildings, smart transport, smart houses, smart utilities. These need to be interconnected.**  
 Data transfer will be key in achieving local singularity.

3.5 ★★★★★ (18)   
 Ranked #49 of 113

**One of the difficulties with the challenge is that "data" is often stored in different formats across cities, so the challenge has complexity**  
 May require a "re-work" of existing data so that each data set can "talk" to each other

3.3 ★★★★★ (27)   
 Ranked #71 of 113

**Collaboration between West Kootenay professionals and those in other regions**

3.1 ★★★★★ (27)   
 Ranked #83 of 113

**shared data and connected tech strengthens our whole region.**

2.9 ★★★★★ (25)   
 Ranked #91 of 113

# CITIZEN ENGAGEMENT

**Let citizens submit reports with photos and location info on problems the City should know about (e.g., lights out, potholes) from phones, computers**  
 Engages people to be the City's eyes and ears.

3.7 ★★★★★ (16)   
 Ranked #20 of 113

**Opportunities for public input via online voting or exchange platforms**

3.4 ★★★★★ (27)   
 Ranked #58 of 113

**311 style tools to report to local governments**  
 Allow for low-friction problem reporting from citizens

3.3 ★★★★★ (27)   
 Ranked #70 of 113

**Push emails**  
 Almost immediate information to residents

2.8 ★★★★★ (25)   
 Ranked #93 of 113

**Let citizens monitor the locations and paths of snow removal equipment in real time**  
 Lets them know when trucks are coming. Also lets them get their cars off the road (out of the way) in timely manner.

3.7 ★★★★★ (16)   
 Ranked #19 of 113

**Better communication between City Council and residents**  
 There is a perceived level of obscurity between council thinking and "the outside"

3.4 ★★★★★ (18)   
 Ranked #65 of 113

**Community discussion and interaction**  
 Facebook is not the answer

3.2 ★★★★★ (18)   
 Ranked #79 of 113

**unite and share views**  
 stay informed on emerging issues

2.5 ★★★★★ (18)   
 Ranked #99 of 113

**Develop a platform where data collected by various groups could be accessed and shared.**  
 This would allow for better sharing of info and decisions

3.6 ★★★★★ (10)   
 Ranked #39 of 113

**Better service delivery to citizens: "smarten up" their input to Cities, their interactions with Cities (e.g. bill payment), on a regional platform.**  
 We have the opportunity to bring the relationship between citizens and their local govts into the 21st century - smarter 2-way info flows

3.5 ★★★★★ (16)   
 Ranked #54 of 113

**Ideas, thoughts, solutions, big and small can easily be shared - just like this!**  
 Waiting for big government to solve our problems is a fools game. Grassroots solutions are the path.

3.4 ★★★★★ (18)   
 Ranked #66 of 113

**Push texts**  
 Immediate information to residents

3.0 ★★★★★ (25)   
 Ranked #90 of 113

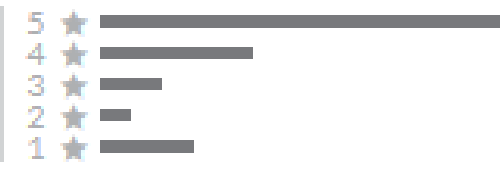
# ENVIRONMENTAL

## public transit, water issues, road conditions, fire hazard in the surrounding areas, growth planning, health planning

all (plus many more) have the potential to identify problems before they occur. Instead of being reactionary, public agencies can be proactive

4.0 ★★★★★ (24)

Ranked #5 of 113

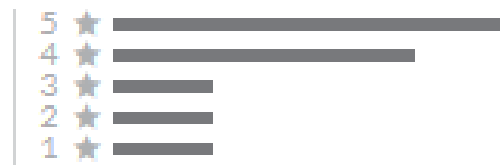


## Water Shed monitoring

Many people get water from local sources. Online data regarding the flow rate and water quality would be useful for residents

3.8 ★★★★★ (10)

Ranked #14 of 113

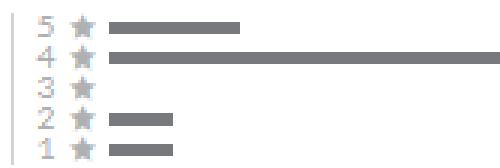


## Example is water, the RDCK is currently doing a project to identify flood risk for all of our creeks, we need data on water quality and quantity.

We would have a more holistic view of our water resources

3.7 ★★★★★ (10)

Ranked #24 of 113

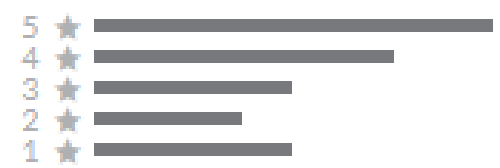


## virtualization and censors can be installed on critical public infrastructure to identify problems before they occur

reduced risk of major events, performance optimization

3.4 ★★★★★ (25)

Ranked #62 of 113

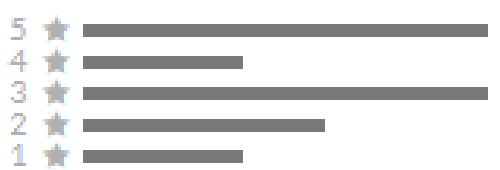


## Indoor greenhouses

Use power from Nelson Hydro to grow local veggies indoors for locals in winter. Use LED lights and stacking tray tech. Geothermal / woodwaste heating

3.3 ★★★★★ (17)

Ranked #75 of 113



## Resolving problems locally is much more achievable with the ability to source solutions globally.

Imagine a cooperatively and collaboratively built locally to reduce our local carbon output.

3.2 ★★★★★ (17)

Ranked #80 of 113



## Monitor infrastructure systems for leaks and efficiency losses.

Water line losses increase costs and may run unknown for some time. Sensor additions in upgrades could pinpoint trouble areas.

4.0 ★★★★★ (21)

Ranked #6 of 113

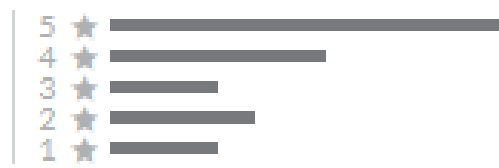


## Better wildfire mapping and monitoring

Public safety

3.7 ★★★★★ (27)

Ranked #17 of 113



## Smart energy measures and controls

Control the power grid to increase and decrease the flow of energy by time of day and demand, and variable rate billing.

3.5 ★★★★★ (17)

Ranked #53 of 113



## More efficient utility services

Savings to local taxpayers

3.4 ★★★★★ (24)

Ranked #63 of 113



## Avalanche monitoring

Protect backcountry users and help them make informed decisions

3.2 ★★★★★ (27)

Ranked #77 of 113



## Environmental cross contamination and the effect on its residents

It is important to apply a larger plan that encompasses all the local areas since environmental factors are not place specific

2.8 ★★★★★ (13)

Ranked #95 of 113

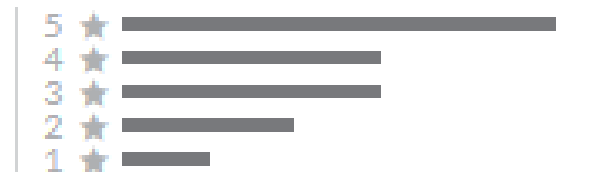


## LED street lighting combined with sensor tech.

Vast savings to communities in power costs (thus taxes) and different sensors mounted on the light standards can keep track of pollution and more

3.6 ★★★★★ (14)

Ranked #36 of 113

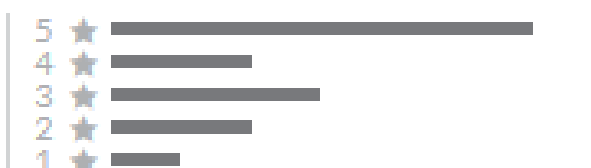


## environmental monitoring through sensor technology

The West Kootenays have a long history of mining, logging, and other resource extraction and processing technologies.

3.7 ★★★★★ (14)

Ranked #22 of 113

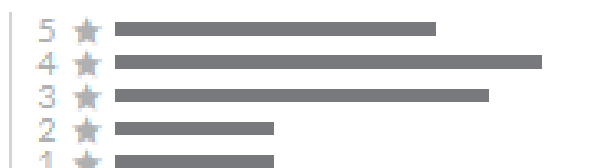


## grid-connected micro solar arrays for each household, coupled with e-vehicle storage

use electric vehicles as connected storage systems

3.4 ★★★★★ (27)

Ranked #60 of 113

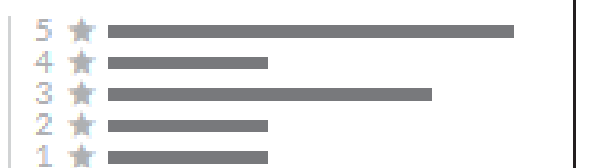


## Improved data connectivity leads to less hard wire and more wireless

Less infrastructure capital cost and less maintenance. Improved aesthetics and environment.

3.4 ★★★★★ (15)

Ranked #68 of 113



## Would be great to have transparent data info on the solar garden. allow residents to put energy back into the grid. Housing app to help address needs

3.2 ★★★★★ (26)

Ranked #78 of 113



# SOCIAL CONSIDERATIONS

## Being able to use technology to assist with with people living in poverty.

Nelson has the second highest poverty rate in the province.

3.7 ★★★★★ (10)

Ranked #23 of 113



## Provide the Food bank with the ability to be able to use tech to coordinate with local producers and restuarants

3.7 ★★★★★ (10)

Ranked #26 of 113



## Us baby-boomers are a needy lot. We'll need services as we age. I'm told there are a lot of us.

We'll want services we can't even imagine yet. This need requires all sorts of support that will come to us in-home. Bandwidth is crucial.

3.6 ★★★★★ (16)

Ranked #35 of 113

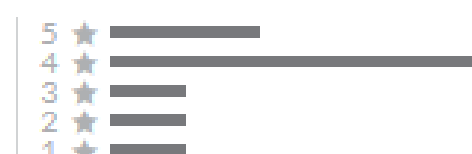


## Use Tech to assist Restaurants with providing leftover to the food bank

Reduce food waste

3.6 ★★★★★ (10)

Ranked #40 of 113



## Use technology to connect assist with gathering food for food banks. Connecting local farmers to food bank.

Reduce the waste in local food production and usage

3.5 ★★★★★ (11)

Ranked #55 of 113



## Reduce poverty

Increases quality of life for everybody in the community

3.4 ★★★★★ (5)

Ranked #69 of 113

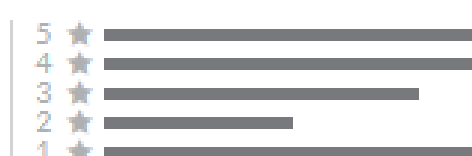


## Single Community Events Calendars

Helps Community members, families, and event organizers to plan better.

3.1 ★★★★★ (26)

Ranked #85 of 113



## West kootenay regional central data bank for housing rentals/leases.

serious housing challenges in our area and lack of consistency to access information. With one data bank, win-win for renter and rentee.

3.1 ★★★★★ (8)

Ranked #88 of 113



## Mental health and homelessness

This is a growing issue, and the resources used by RCMP dealing with the effect, rather than addressing the cause, has to change. Need better housing

3.1 ★★★★★ (7)

Ranked #89 of 113



## Online training sessions that show how to properly can and / or ferment food.

This would allow some volunteers to be able to provide some assistance to can and /or ferment food that can be used by the food bank in the winter

2.8 ★★★★★ (10)

Ranked #96 of 113



## Helping people find affordable housing

There are no starter homes

2.7 ★★★★★ (26)

Ranked #97 of 113

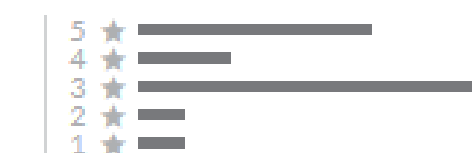


## Lending library of tools, sporting goods, and small appliances.

If Blockchain Tech was used to create a lending library for these things it would be easy to keep track of. People would share and save money.

3.5 ★★★★★ (17)

Ranked #52 of 113



## Online directories for services

People need to access services, however, there is no centralized directory for many different types of services.

2.8 ★★★★★ (18)

Ranked #94 of 113



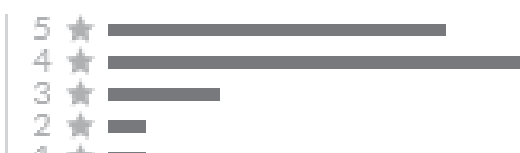
# HEALTH & EDUCATION

## increased access to remote medical services

video appointments, diagnostic tools etc could be extremely impactful for elderly people challenged by the remoteness of their home when they are ill

4.0 ★★★★★ (25)

Ranked #4 of 113



## Improving access to education

Between school closures for young people and access to higher/continued education for adults, improving technology can facilitate access.

3.6 ★★★★★ (27)

Ranked #28 of 113



## Video conferencing to connect people in this region with medical specialists in larger centers.

The quality of medical care is far better in the larger centres. This could help even out the discrepancies.

3.6 ★★★★★ (18)

Ranked #32 of 113



## Empowering people to learn - more local traction for learning renewable energy technologies + information technologies.

Fostering a community that is encouraged to learn benefits of technology will help us create a more efficient and sustainable community.

3.5 ★★★★★ (17)

Ranked #51 of 113



## Help people access health care

poor public transportation and too few doctors are barriers

3.5 ★★★★★ (8)

Ranked #57 of 113

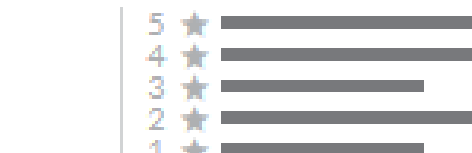


## Shorten the distance between rural and urban centres

Better acces to healthcare without having to drive to a bigger centre for a 15min follow up appt

3.3 ★★★★★ (26)

Ranked #72 of 113



## education

2.4 ★★★★★ (12)

Ranked #100 of 113

