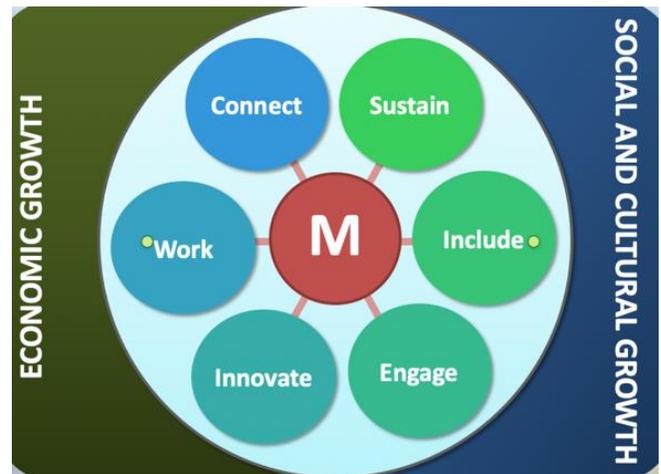


Arrowhead Intelligent Region Initiative Summit Report

February 10, 2021
Online (Zoom)

Introduction

The Minnesota Department of Iron Range Resources and Rehabilitation and Blandin Foundation hosted over 100 participants in the Arrowhead Intelligent Region Summit to learn and discuss how the Arrowhead Region can increase its economic competitiveness. Blandin and IRRR have used the Intelligent Community Method developed by the Intelligent Community Forum (ICF) (www.intelligentcommunity.org) to work with ten northeastern Minnesota communities over the past several years and this summit is the cornerstone to bringing this concept to regional scale.



Robert Bell, an ICF co-founder compiled and presented the data.

Key Initiative Information:

Complete details on this initiative can be found at <https://blandinfoundation.org/programs/broadband/arrowhead-intelligent-region/>.

The completed regional benchmarking questionnaire described below can be found at <https://online.fliphtml5.com/zdita/qjrv/?1612493456984#p=1>. By reviewing this document, the benchmarking scoring system can be better understood.

This meeting summary captures the highlights of the Summit proceedings. The meeting (with the exception of the breakout sessions) was recorded and can be viewed at: <https://www.youtube.com/watch?v=46OHfXltgyE&feature=youtu.be>.

Presentation slides are available here: <https://blandinfoundation.org/content/uploads/AIR-Summit-ICF-Presentation.pdf>



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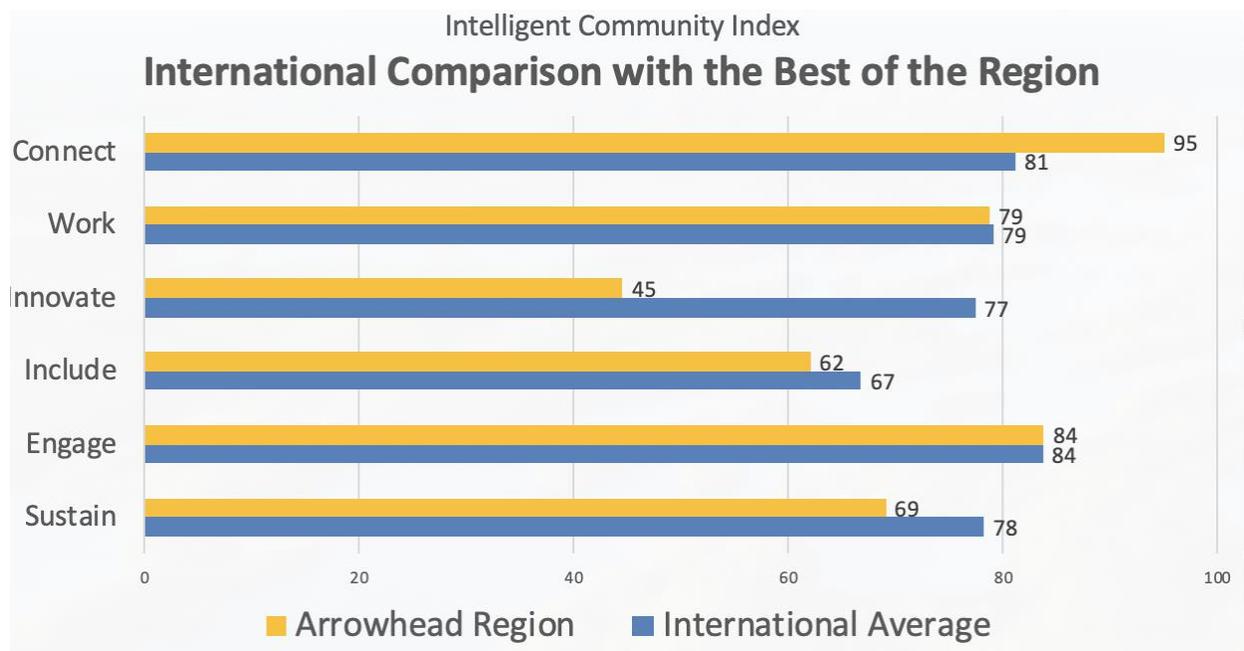


An in-depth report on the regional benchmarking process and scores will be provided soon by ICF. This report will focus on the Summit’s participant discussion and provide context as appropriate.

To begin this process, Bill Coleman of Community Technology Advisors completed and submitted the ICF benchmarking questionnaire which includes multiple datapoints from federal and state sources as well as storytelling about three successful projects and initiatives in each of the six factor areas. Data gathering did not include any surveys of organizations or individuals.

Coleman received input from IRRR and Blandin staff, members of the Arrowhead Growth Alliance and many others from the region. In addition, Arrowhead communities and counties were invited through the Iron Range Economic Alliance and direct invitation to complete their own benchmarking questionnaires; East Range, Chisholm/Hibbing, Duluth, and Koochiching and Itasca Counties responded to this opportunity. Those communities will directly receive customized reports based on their responses compared to approximately 400 communities around the world.

The table below provides the scores for the Arrowhead Region against this database of community respondents. Notable scores included the relatively high score for Broadband and the relatively low score for Innovation. The scores for the other four factors are remarkably close to the international median score though Sustainability was slightly lower than average.



Summit participants self-selected into discussion groups based on their own preference. Broadband had three groups, Workforce, Innovation, and Digital Equity had two groups each, and Sustainability and Engagement had one group each. Groups ranged from five to ten size. The groups had 30 minutes to discuss and present their highlights to four questions:

- What was the most striking/interesting thing from the benchmarking report?
- Which best practices from the presentation are most applicable to the Arrowhead Region?
- Who/Which/What are the region's best assets (people, organizations, programs) for adopting and implementing global best practices?
- If there is one thing that the region should prioritize in this Intelligent Community element, what should it be?

The responses are provided below. As each discussion group meandered through the inter-related Intelligent Community factors, the twelve discussions have been melded into a single narrative. Comments that appear to represent consensus are unattributed. Where comments appear to be outside of the consensus, they may include a qualifier such as "one person indicated." In addition, at the end of each section, context is provided that might help to clarify identified issues.

In essence, these discussions focused on this question: How do we take all of our assets and creatively problem solve?

Connect (Broadband)

“High-speed connections for computers and mobile devices are the infrastructure no community can do without. Through those connections come employment opportunity, education, commerce, information, entertainment and community participation.” (ICF web site)

Notes from the break-out groups:

- There is great skepticism about the very high score (95/100) in broadband connectivity, including questions about maps and data sources that rely on broadband providers for content. Maps can make it look like we're very connected but not helpful – we need better maps and data. Even the maps show that much of the region, especially in rural St. Louis County, is unserved. In St. Louis County, the larger cities are served, but away from Main Streets there is not service.
- For many, the reality of broadband deficiencies in the area is alarming. Many people aren't connected and aren't part of the conversation. The experience of people on the ground is much different. Lack of access and affordability both issues.
- IRRRR did a survey with owner brokers of real estate firms. Number one comment was high speed broadband for business and supporting remote workers.
- Overall, there is a good network in place. The score represents a good, concentrated effort on infrastructure in our region, yet areas still remain unserved and providers are finding it increasingly difficult to make the #'s work for adequate return on investment (ROI). Each provider may have a different formula for their required ROI. Deployment cost per household, considering construction cost and population density, determines if it makes an investment possible. Construction is expensive – especially for buried fiber optic cabling in the rocky areas of the region.
- Barriers to broadband deployment include IRRR's prevailing wage requirement as it is stricter than DEED's policy and some federal programs. Permitting delays and costs when crossing state highways or railroad tracks is still an issue.
- One challenge is that technology is always changing, and this is problematic for communities who have nothing. What strategy do they pursue? Some incumbent providers need to upgrade their networks from outdated wired technologies like DSL or outdated cable systems. How far behind can a community get in broadband deployment, to where it makes more sense to move beyond broadband and try to get ahead with a newer technology (satellites, Elon Musk, etc.)
- Federal and state program policies and how they interrelate to each other can be problematic. A clear example is the impact of RDOF funding on state grant funding decisions. Wuori Township (and others) had been working for over a year with an interested provider and are now back at square 1 with DEED's decision-making. Federal agency decisions definitely affected the Lake County project and now some percentage of county residents are still unserved.

- Duluth really wants to work with the incumbents to address equitable access across the City.
- APEX continues to see broadband access the #1 priority among their members.
- Affordability is a critical issue, more completely addressed in the digital equality factor.
- The Northeast Service Cooperative project was one of the region's broadband success stories highlighted in the benchmarking as were the Arrowhead Electric and Lake County projects and various public-private partnerships within the region.
- NESC provides a unique asset for regional broadband deployment as a neutral, public-focused middle mile provider. NESC allows a new competitive provider or incumbent to cross large territories without capital expenditures – enabling providers to provide household and business Gigabit access.
- We need local government officials to be engaged in this process; in many places, local leadership is missing in this conversation. We need county participation and need our utilities as partners!
- We have the personnel and infrastructure to get it done.

If there is one thing that the region should prioritize in this Intelligent Community element, what should it be?

- Broadband. What was done in the past was great but new technology changes the need, especially in rural connectivity. Diversifying the economy would be enhanced by broadband connectivity.
- Communities need to collaborate much more on this issue and make it a much higher priority to move the needle. In St Louis County the most effective programs we have are a result of joint power agreements, more collaboration, cooperation always helps the issue move up the list of priorities. More awareness of the issue is critical to moving anything in the region up the priority list at all levels of government. Citizen involvement is critical to success. We need some kind of facilitation.
- We appreciate the financial support of the IRRR but more is needed.
- We need to overcome the uneven infrastructure distribution. Connectivity is not an asset shared equally across the region. It's wonderful if you have access. Your job/business may have great access, but at your home you have no access. It's not a matter of if you should have it, it's yes, you should have it, & here is why.
- Funding is a major issue for communities. How do we include broadband into major infrastructure projects while we are already digging in the ground.

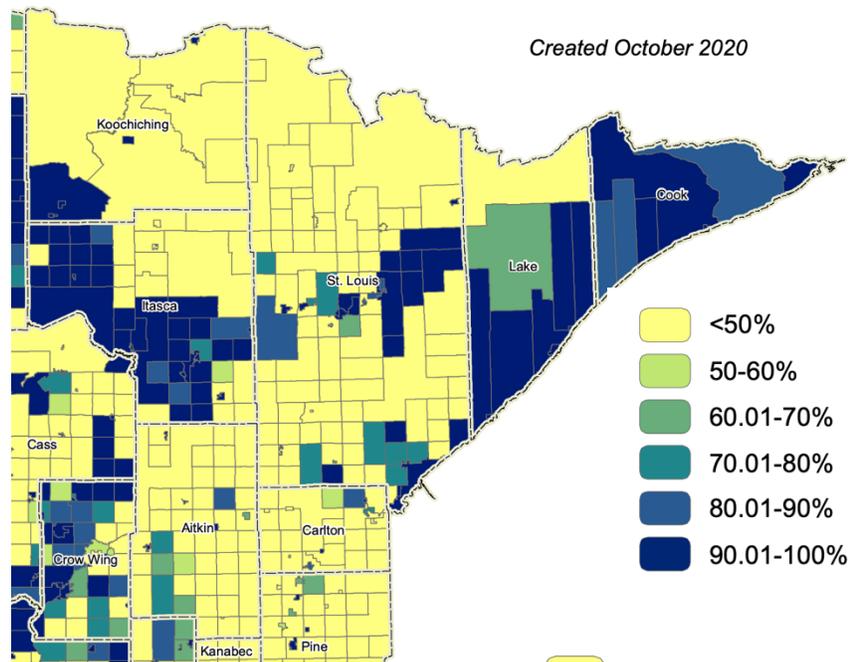
Coleman's Context - Broadband

No survey was implemented to collect broadband data. State maps and data, plus data gathered from provider web sites were used to complete the questionnaire.

The Arrowhead Region Broadband score is driven by the advantage that this region has with the Northeast Service Cooperative. They are unique in Minnesota and there are few similar examples across a rural region like the Arrowhead. The score was also boosted by the networks in Lake, Cook and Itasca Counties with widespread rural fiber to the home networks. The score was boosted by the recent FTTH public-private partnerships across the region using local, IRRR, DEED and federal funds. And finally, by the unique collaborative efforts with the two regional broadband feasibility studies – Hibbing to Mountain Iron and the Laurentian-East Range-Tower (LTE) that has provided a platform for broadband infrastructure development within the region.

There is indeed great disparity in connectivity across the region. The state provides data on the percentage of households currently having wired connections that deliver greater than 100 Mb/20 Mb. Here are the county numbers: Cook – 94.5%, Lake – 93.4%, Itasca – 84.14%, St. Louis – 79.23, Koochiching – 68.85%, Carlton – 52.46% and Aitkin – 46.32%. If you would remove Duluth from the St. Louis County numbers, the percentage for rural St. Louis County would fall drastically. The entire state average is 87.75%; the overall rural average is 72.53%.

This map shows the availability of 100 Mb/20 Mb services by township which confirms the unserved nature of rural portions of the region.



Work (Knowledge Workforce)

“Management consultant Peter Drucker coined the term ‘knowledge work’ in the Seventies, when he predicted that it would soon become impossible to live in the middle class if manual work was your only skill. Those without the right skills are increasingly being left behind.” (ICF website)

Notes from the break-out groups:

- The regional and international workforce benchmarking score were identical. Our workforce development efforts are well-supported by the K-12 educational system, community colleges and technical colleges. We are also doing good work with economic sector initiatives – health care, mining, and trades. We have the Iron Range Engineering program and many others. We have business-centric college advisory councils that keep programs focused on industry trends and future needs. Technology needs to be an integral part of every program.
- One size doesn’t fit all. The thing that stands out is the approach to bring multiple stakeholders to the table. Taking an economic development approach is good. I like the idea of multiple stakeholders coming together to map out a strategy for the future. Have a broad strategy for the region, but community-by-community plans. Many industry hubs are happening throughout the region. How do we get people on the same page for “regional prosperity” and then expand out?
- We’ve done this around career pathways in healthcare and trades – continue to do that and think about technology as a significant component of already-existing programs. Add additional pathways and include technology in all of them. We have a good start and can grow.
- We need to train people for digital literacy and work with business owners/managers so that this new digital literacy helps people find quality work. We need more technology access and training, especially during the pandemic.
- We have programs and assets on which to build:
 - Career Pathways team – tech not for tech sake, integrating this thinking with existing programs
 - Become an attractive place for young people to work
 - View the youngest worker generation, those that grew up using technology as an asset.
 - Reorganize the power structure to invite new ideas from younger people
 - Create a shadow board – younger employees to give opportunity to talk to senior leadership.
 - Pair experienced project manager with younger person.

- Rock Ridge School District creatively taking advantage of programs available
- Higher education institutions should be regional leaders in the workforce area
 - Colleges need to respond and move to match the changes taking place
 - Advisory boards at colleges with employers so they hear the needs
- Do not forget about our natural resource economy and its workforce needs.

If there is one thing that the region should prioritize in this Intelligent Community element, what should it be?

- As we think about next steps, we need to know that what got us “here” won’t be enough to get us to the next step up the development ladder. How to work together with a regional plan when different areas (Range vs Duluth) have such different ideas on best practices? We need to find a way to integrate Duluth into regional efforts. Figure out where the needs intersect and where things are different in city vs rural needs.
- Coordination of workforce programs and strategies is critical. Avoid duplication and confusion about who is delivering which programs. There are so many good things happening but being duplicated throughout the whole region/state. How do we connect the dots so there is a more intentional effort to avoid resource drain? There is the awkward dance of “who is responsible” for what? How do we effectively get education, business and business organizations to collaborate?
- We need to avoid the project-by-project trap – we need to come up with a strategy for the region.

Innovate (Innovation)

“Economist Robert Solow won the Nobel Prize in 1987 for proving that 80% of all economic growth comes from developing and using new technology. That’s why every place needs an innovation strategy.” (ICF website)

Notes from the break-out groups:

- Participants were surprised by the low score on the Innovation factor based on tradition and self-assessment.
- Some were not surprised by perceived low levels of digital illiteracy and use of technology by local businesses, such as web sites, e-commerce capability, etc. There is a feeling that the area lacks tech support entities, including libraries and Adult Basic Education (ABE). Lots of information that validates beliefs, but also things to challenge our thinking.
- Entrepreneurial opportunities are disappointing now. There were many in the 80s – this is the missing innovation gap.
- Our connectivity is not being reflected in new innovation – may be a barrier to progress because we’re not showing the success stories we have.
- We should not forget to promote innovation in our traditional natural resource-based industries.
- There was discussion around rural and urban narratives around innovation. How does that influence the Duluth-Iron Range relationship and the Arrowhead-Twin Cities relationship? This is also critical with the differences between innovative practices of large and small businesses, and in particular, can we encourage small, but forward-looking practices by small businesses.
- Innovative practices can be accelerated through a number of strategies.
 - Great higher ed assets to leverage.
 - Reconfiguring and connecting resources in different ways. We have resources here that need to be connected differently.
 - Adjust attitudes towards new opportunities. Engage the public around change methodology.
 - Regional players need a better understanding of the assets they bring to the table and how to connect them with regional partners.
 - We need to do a better job of articulating our strengths and driving them ourselves rather than looking to outsiders.
 - Our communities or regional entities have not adapted a strategy to promote innovation.

- Northeastern Minnesota is late on the state’s innovation efforts. There is little organized leadership driving an innovation agenda at this point. We need to identify those who are committed and well-positioned to drive this priority, possibly APEX and also NRRI. We also need to inventory our innovation assets, including the SBDC and the Entrepreneur Fund. The Launch MN program is a model. Tribes can be a part of this innovation effort.
- Innovation strategies can be applied to all industries (pure technology to traditional and emerging natural resource companies) , non-profits, local units of government. We want to capture private investment in this kind of innovation initiative.

If there is one thing that the region should prioritize in this Intelligent Community element, what should it be?

- Need to develop a strategic overarching plan, create innovation system so players know what each other are doing (coordinated effort)
- Infuse technology and innovation into all community/economic development strategies
- Making sure technology is being integrated into COVID relief, especially for businesses looking to survive and make upgrades
- Focus on the younger families (age 25-40), helping them remain in the region or relocate to the region through quality employment with innovative firms and all aspects of high quality of life.

Coleman’s Context – Innovation

The Intelligent Community score for Innovation is weighted to reward innovation policies of local units of government and/or economic development agencies. As indicated by the discussion above, those are largely absent in the Arrowhead Region. In our work with our Broadband Communities, we celebrate the innovation advances of many small companies and organizations, some of which we have found to be quite far behind in their business strategies and operations. With the pandemic, it is amazing to see the technology progress that many organizations have made – ranging from delivering education to delivering pizzas. The goal would be to create a culture of innovation where companies and organizations are not racing to catch up, but rather racing strategically to the front of the pack.

Engage (Advocacy)

“Engaging people in the earliest stages of projects creates ownership. More than ever before, we have digital tools at their disposal for communicating, developing coalitions, coordinating action and turning the fears or enthusiasms of a few people into a community-wide movement.”
(ICF website)

Notes from the break-out groups:

- Key engagement topics discussed in the groups included economic development, broadband access, adoption and use, and attraction of people and investment. Overall, participants talked about the need for an overarching regional strategy on engagement. We need to capitalize on potential growth in rural areas post-COVID; – we need connectivity as part of our regional marketing strategy
- Broadband is a key topic – how do we get it accessible for all regional residents and businesses. For those not yet interested, we need to show how broadband can be a value to them. We need a way to create users; users are the most powerful thing to help get more broadband. We need to reach those who are falling between the cracks. It is harder to organize when they’re on the margins and especially hard to reach. We may need alternative methods to connect some of these people. Again, innovation is important here.
- We should emulate the Brainport model of Eindhoven in the Netherlands. We need a project manager to coordinate and communicate what is going on in the region.
- Embrace change...move forward. Don’t act on nostalgia – it’s hard when we love our history but there is a difference between loving our history and living in the past.

If there is one thing that the region should prioritize in this Intelligent Community element, what should it be?

- Continued competition between communities is damaging to the social and economic development of the region. Creating a stronger regional identity would have many benefits.
- We need a unified vision for where we’re going. There is great value to hearing and telling individual stories that highlight needs, issues and successes. There is a need for more communication at all levels. One size might not fit all. Work to develop broad consensus on goals and objectives. The approach taken in communities by bringing multiple stakeholders together with an economic development mindset seems to work well. Avoid project by project approach. Work to narrow that gap between Arrowhead communities across all 6 Factors.

- Engaging over broadband is leaving out a large sector of our economy, typically younger groups, older groups and lower income. Go where people are, don't make them come to you. Beer & Broadband in CO per Robert sounds like a great idea. Create something fun to activate people in a way to get them interested in broadband vs. COVID19 forced many into using and trying to find locations with broadband.
- Develop an Arrowhead FrontPorchForum.com as a more local, moderated, non-partisan and non-profit platform we could develop for strengthening local communities throughout the Arrowhead region, very much in keeping with the ICF model. The FPF approach reduces many of the issues plaguing social media platforms while reinforcing community engagement and connectedness. It's particularly valuable during the pandemic and with growing controversy at how major social media platforms operate. Jim would be willing to help launch an effort along these lines for the Arrowhead region.

Include (Digital Equity)

*“The explosive advance of the digital economy has worsened the exclusion of people who already play a peripheral role in the economy and society, whether due to poverty, lack of education, prejudice, age, disability, or simply where they live. Effective digital inclusion programs target three aspects of exclusion: affordable **access** to digital technology and connectivity, the **skills** to put the technology and connectivity to work, and **motivation** for the unconnected to adopt digital habits.” (ICF website)*

Notes from the breakout groups:

- Broadband equity emerges in two ways. The first question is whether quality broadband is available. The other is affordability. The issue of availability is addressed specifically in the Broadband/Connect factor earlier in this report.
- Affordability is a critical issue for families across the region. For these households, it does little good to have availability if you cannot afford to subscribe. This is an issue magnified by COVID 19 for low income families across the region. If you don't have the resources – be it a connection, device or digital skills – it's going to have a negative impact on someone's job, education, access to health care, etc. Without broadband, you cannot work from home.
- Without broadband, you cannot learn from home. There are all kinds of negative ramifications including the inability to play school sports if you fall behind in school. The lack of a connection sets people back. It is an equity issue. These impacts fall hardest on those who are already having a difficult time due to low incomes, educational background, etc. Some of these families have simply dropped out of sight.
- Broadband should be considered a utility as important as electricity in these times. As well, cell/smart phones are crucial to operate/live in a modern fashion. Basic technology and broadband subsidies should be more flexible and widely available.
- Schools have worked hard to help families get connected through programs offered by cable companies and cellular hot spots. Not all providers have these programs. Some of these programs provide use for school, but not other household uses. Data caps may impinge on usage. Slow speeds may preclude multiple users being online, especially for Zoom calls, at the same time.

If there is one thing that the region should prioritize in this Intelligent Community element, what should it be?

- Continue the increased emphasis on digital equity that has gained more traction with the pandemic. We need to highlight the have's and have-not's of broadband access. We are late to realize the real burden that the disconnected have faced prior to the pandemic and now magnified and expanded.

- We should recognize the benefits of telecommuting which can be very helpful at addressing the whole range of issues.
- We should continue to support and expand programs offered now by LISC and through the Blandin/IRRR Broadband Communities program – digital navigator and small business digital literacy for businesses. We should develop a tech center that provides 1 to 1 training and aid to small business who are unable to afford professional tech/IT staff. This strategy should include strong engagement of our higher education systems supporting both residents and businesses. We should also engage students to provide training and tech assistance to the community creating in them a sense of belonging that makes them want to stay in the region after graduation.

Sustain (Sustainability)

“Working on sustainability has the power to energize community groups, neighborhoods and community leaders with the promise of making a difference. They work they do in collaboration with government can have tangible impact on local quality of life, making people prouder of the place they live. Sustainability is generating substantial new opportunities for technology advance, business growth and employment in green industries.” (ICF website)

Notes from the break-out groups:

- There was some surprise that the region scored so well and a lack of surprise that the communities scored lower than the region. There is a real need to better understand our regional situation regarding our sustainability status and opportunities.
- There are three factors of sustainability: Ecological, Social and Economics.
- There was consensus within the small group (only five people) that we need to work both from the top down and the bottom up. The top down approach to sustainability is positive and is having impact – mine land reclamation and St. Louis River clean-up are two examples.
- There is an opportunity for handling the region’s handling of solid waste. It is now trucked to Hayward Wisconsin and that landfill is close to capacity. There are many organics in this waste stream.
- We need to re-localize food - schools used to feed themselves. We could do that again.
- Increased tele-commuting for work within and to outside employment is a real sustainable, economic development strategy.
- The region has always been just about mining, forestry, energy. Natural resource extraction culture is barrier to cultural transformation. Younger generation more interested in this concept. More discussion required across sectors and generations.

If there is one thing that the region should prioritize in this Intelligent Community element, what should it be?

- We should focus on the areas where we scored the lowest on the benchmarking. These might be the easiest for improvement, especially in policy development and adoption areas. Regional successes will emerge on which we can build.
- We need a cultural shift required around sustainability that sustainability can be positive, not a constraint. We need to recognize the younger people in the region and bring them to the table.