Getting Started
Creating the Intelligent Community

Intelligent Community Forum
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In this practical guide to getting started, we explain what an Intelligent Community is and outline the ICF Method of development. We then offer specific steps by which local government in a community of any size can begin its transformation into an Intelligent Community.

**What is an Intelligent Community?**

You probably know what a Smart City is. But what is an Intelligent Community? Do we really need another word for the same old thing?

“Smart” is about applying technology to make cities work better, faster and cheaper. It is like automating a factory. Install the sensors, cameras, computers and network connections. Integrate them with software and artificial intelligence. Better data leads to better decisions, and automation lets you do more with less labor. It’s a win for the city, its residents and taxpayers.

**But it’s not good enough**

Cities, of whatever size, are not just collections of infrastructure. They are stories, living and breathing. They have their roots in the first decisions of people to settle in that place, to group together by a riverbank or lake or ocean, or at a sheltered place where roads crossed and both water and fuel could be found. The visible parts of the city – and today, the invisible elements of the digital web being weaved within it – are the outward signs of an inward spirit.

An economic development officer for a small city summed it up: “Smart Cities are all about stuff. Intelligent Communities are all about people.” That’s why, at ICF, we don’t think that being Smart is nearly good enough. We think the real journey of the place called home should be from Smart to Intelligent.

**From Smart to Intelligent**

Here’s an example. Traffic studies show that 30% of the cars in congested central business districts are looking for parking. So, if we can reduce the time they spend in that search, we should also be reducing congestion and air pollution. A Smart City will specify its requirements, do an RFP, select vendors, install systems and start sending data to apps on phones that direct drivers to available parking. Smart, right?

Intelligent means something more. It means engaging local universities and technical schools, entrepreneurs and established businesses as partners in planning and carrying out this innovation project. What can be sourced in the municipality or the region? Where is there expertise that can help? It also means engaging the public in helping determine how and where the innovation should happen – or even if downtown congestion is really that big an issue.
Solving problems that matter

Intelligent takes longer. It is more complicated, because it requires so many different players to work together. But it improves the odds that the solution will actually solve a problem that matters, and that the solution delivers benefits far beyond its scope. Benefits like building the capacity of local companies in the fast-growing technologies of the Internet of Things. Like giving birth to a new university or community college department that turns out graduates skilled in those technologies. Like making the innovation project something that citizens talk about, take pride in or worry about, increasing their commitment to their community.

In the end, the time spent saves money and time by avoiding investment in the wrong things and tapping local expertise to solve local problems. It also generates a return on that investment that is vastly greater than any technology project.

So, by all means be as Smart as your ambition and budget allow. But why settle for Smart when your community has what it takes to become Intelligent?

Creating an Intelligent Community

The digital age demands new ways of thinking about what makes a town, city or region work. It requires leaders to care about different things and see their responsibilities in a bigger context. Towns, cities and regions that adapt to these demands survive and thrive amid technology disruption and global competition. Those that don’t face stagnation, decline, population loss and the social and cultural erosion they bring.

Intelligent Communities apply a Method developed by the Intelligent Community Forum beginning twenty years ago. It focuses development on six critical Factors that determine economic, social and cultural success today.

Connect

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. Businesses depend on them to manage their operations, reach customers and attract employees. Governments rely on them to generate and analyze massive amounts of data to improve decision-making. (Smart still counts.) Connected digital infrastructure including sensors and cameras make possible machine learning and Internet of Things (IoT) applications that deliver better services for less money to more people and employers.

Work

The well-paying work of the 21st Century is knowledge work. All opportunity for meaningful employment has shifted to those with skills, from the construction trades and automated factories to technology, finance and business management. Those without the right skills are increasingly being left behind. Intelligent Communities create a knowledge-based workforce
through strong and continuing collaboration among local government, employers and schools. Together, they turn education into a ladder of opportunity that teaches skills that are in demand and connects young people with opportunities in the region to strengthen the community's economic and social foundation.

Innovate
Economist Robert Solow won the Nobel Prize in 1987 for proving that 80% of all economic growth comes from developing and using new technology. If the employers, institutions and government of your city or county are not creating new opportunities or putting new technology to work, you are missing out on 80% of the potential growth in today’s economy. That’s why every place needs an innovation strategy, which may range from tech clubs and hackathons to startup districts and IoT infrastructure.

Engage
To create change, you cannot afford to leave out the people of the community. They may not yet understand the challenges or have any idea how to tackle them. But they can become either the biggest obstacle to positive change or its most powerful advocates. Engaging people in the earliest stages of projects creates ownership. Ensuring that projects are designed and executed in a transparent and ethical manner builds trust. More than ever before, residents have digital tools at their disposal for developing coalitions, coordinating action and turning the fears or enthusiasms of a few people into a community-wide movement. That can drive your strategy forward or freeze it in its tracks.

Include
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. It has also disrupted industries from manufacturing to retail services, enlarging the number of people for whom the digital revolution is a burden rather than a blessing. Effective digital inclusion programs target access to technology and services, the issues of affordability, and give people both the skills to use digital technology and reasons to learn those skills.

Sustain
Environmental sustainability is a global concern with local impact. It engages the community and generates action. When communities make sustainability a goal, they energize community groups, neighborhoods and community leaders with the promise of making a difference. Sustainability is also good for the economy. As the world is turning its attention to reining in human impact on the planet, sustainability is generating substantial new opportunities for technology advance, business growth and employment in green industries. It also helps communities achieve resilience in the face of environmental threats and human-caused emergencies.
Starting Your Program

The first step is the hardest step. The blank page or empty stage, the welcoming handshake or the opening remarks. Starting Intelligent Community development is challenging because it requires people to change how they think about the place called home. It demands that local leaders adopt new priorities. It calls on citizens to accept new costs and benefits and to tolerate uncertainty about outcomes.

The good news – in the words of one Intelligent Community leader – is that it doesn’t cost a thing to change your mind. Getting started can be hard, but it does not have to be expensive, and the rewards can be vast.

Create Your Core Team

No Intelligent Community was ever built overnight or by a single person. Every Intelligent Community begins with a core group of people who decide that the status quo is not working for the community. In most cases, this conviction arises from crisis: the loss of a major employer, natural disaster, social problems from crime to addiction, or what seems unstoppable economic decline and the social disasters it brings. A sense of crisis motivates people to think differently about problems that have long stared them in the face and creates space for new action.

Some remarkable places even embrace change without the sharp prod provided by crisis. In good times, they perceive their risks clearly and embrace action to turn challenge into opportunity. But they are a rarity.

The core team usually takes shape around a community leader – an elected Mayor or leading member of Council. But it can also be led by a business person, an educator, a foundation president or a civic leader – anyone recognized by the community at large as a natural leader whose opinions deserve to be heeded. Success as an Intelligent Community requires, sooner or later, the strong commitment of local government, but that commitment does not need be the starting point. Government, by design, acts at a measured pace and can be just as valuable in the role of enthusiastic follower as initial leader.
The core team takes shape from a shared urgency to address the dangers its members see. Driven by that feeling, they –

- Meet regularly for discussion to build a shared vision of problems that need solving and ways to solve them.
- Research what other communities, both near and far, are doing to address similar problems, drawing on information from colleagues, nonprofit (NGO) groups, conferences, the news media and the web.
- Develop the first pass at a SWOT analysis of the community's strengths, weaknesses, opportunities and threats, both internal and external, based on the team's knowledge of the community as well as research.

**Build Your Partnerships**

Intelligent Community development is a team sport. Broad and deep collaboration is its essential tool.

Once the core team is sufficiently united in its mission and vision, it is time to extend the group outward to those who will want to contribute as well as those likely to oppose change. The goal is to share the preliminary vision of the core team through –

- One-on-one meetings with those likely to become key stakeholders as well as influential people who may not embrace the vision at first but have the interests of the community at heart.
- Scheduled meetings of natural groupings in the community: economic sectors from technology to finance to property developers, downtown merchants, public and private educators, arts and culture groups, healthcare providers and others.
- A public kick-off meeting to announce the start of the program.

Many communities have found it useful to establish a formal partnership of people from government, business, education, nonprofits and citizens. The partnership will have a defined scope, regular meetings, sub-groups dedicated to topics and mechanisms for citizen engagement. The partnership helps create credibility for the mission and honors those selected for it.

Where this is not practical, the core team can provide the leadership, provided that it engages frequently with all the key influencers who would participate in a formal partnership. Whichever approach you take, you must allow time for participants to build trust in the process and in each other.

Groups run on trust, and trust grows one step at a time. You promise to do something and follow through on that promise. I have a need and you connect me with people who can help. Over time, we learn that we can rely on each other’s good will. Until trust is established, the group can accomplish nothing of importance, which is why new groups so often fall apart. To avoid that fate, leaders must target simple activities and quick victories in the early stages and tackle the real work of the group when it is ready for the challenge.

**ADVICE**

The Accelerator Keynote can bring an ICF executive to address a public kick-off meeting of the partnership, validating the importance of the vision, setting it in a global context and providing inspiring examples from other communities.
Map the Opportunities and Challenges

In the first stage, the core team created a preliminary SWOT analysis of the community. The next priority is to conduct a broader and deeper analysis that engages the partnerships you have created. This is the topic of a series of meetings, either of the full partnership or of subgroups within it, which map the strengths and opportunities on the one hand, and the internal weaknesses and external challenges or threats on the other. The ICF Method sets the cardinal directions for that map (see page 3).

The output of this stage is an Intelligent Community report that presents the vision for change and the map of opportunities and challenges facing the community, with a high-level summary for citizens. This becomes the foundation of the next step in the process.

Accelerator Analytics provides a statistical benchmark for your community based on the ICF Method, comparing it to a global data set and offering recommendations for further development. The Accelerator Master Class trains members of the partnership(s) in the fundamentals of Intelligent Community development to help them begin at the same starting point and accomplish more.

Envision the Future

With the report as foundation, the next step is to engage the broader community in envisioning its future. Most participants will never read the full report but its major conclusions in summary form will provide the structure for their work.

This is work that most communities are familiar with: a series of public meetings with representatives from business, institutions and civic groups. Short briefings are followed by brainstorming and small group exercises that draw out hopes, concerns and beliefs about the community’s future. Online surveys and digital collaboration tools expand the number of people participating and a strong marketing campaign underlies the entire project. After review and refinement, the core team publishes the results as a set of principles and calls to action that bear the stamp of the citizenry.

Accelerator Coaching can support the core team in developing and executing this public consultation and share tips and tricks from other communities that have managed successful projects.

Set Your Course

The principles and calls to action provide the basis for planning and execution of the Intelligent Community program. Carrying it out requires the usual mix of milestones and metrics, identification of responsibility and accountability as well as funding for program management and specific initiatives. But nothing is more important than ensuring that the individual initiatives do not wind up in silos but instead function as interconnected parts of a whole that drive each other’s success. This requires continuing leadership at the Council and manager level that sets an example of collaboration across departments.

Accelerator Coaching can provide specific advice on planning and execution of the program as well as examples of successful plans from other communities.
Stay Open to Possibility

To become an Intelligent Community is to embrace a never-ending wave of change, confident in the community’s ability to adapt, learn and make the best of it. While carefully executing approved programs, you must always stay open to new possibilities – many of which will be created by the very programs you are carrying out. These become the basis of new goals and plans, and the cycle of mapping, envisioning and setting your course will need repeating every five to ten years to reflect the changing dynamics of the community.

Sample Planning Documents from Intelligent Communities

Abbotsford BC Canada
Plan for 200K
https://www.abbotsford.ca/city_hall/plan_for_200K.htm

Ipswich QC Australia
2020 Vision Statement and Action Plan

Birmingham UK
Digital Birmingham
http://digitalbirmingham.co.uk/

Starting Small

ICF developed its Method with an ambitious goal in mind. We wanted it to be as useful to communities with populations in the hundreds as it is for those in the millions. That’s a big challenge, because bigger places have more resources, more people in close proximity. They tend to be the dominant economic player across a much greater geographic area.

Those are the very reasons that the digital revolution has so far played to the strengths of big cities, where most tech job growth is taking place. But the same technologies are having another effect, one that is only now becoming visible. Connectivity makes the distance between people and places far less important than it used to be. It allows a company in a small
city in New Zealand, for example, to do business all over the world. It brings education from the world’s finest institutions to the smallest towns. It empowers places far from the “superstar cities” to develop vibrant local economies, to strengthen their societies and to enrich their cultures for generations to come.

To achieve these things, small places have to work harder, whether they are towns standing alone on the plains or are undervalued neighborhoods in big cities. This is the same work that much bigger places do but at a smaller scale. They need to be smarter and clearer about envisioning a better future. And here, they have an advantage, because they are more nimble, with less bureaucracy and fewer interest groups in competition. As one thought leader in our network put it, there are not too many problems in a small town or neighborhood that can’t be worked out over a few cups of coffee.

Starting Smarter

Start where you are

When you decide that the status quo is no longer working, your first impulse will be to focus on the negatives. You and your colleagues are frustrated by the loss of employers, the unwillingness of carriers to bring broadband to your community, or the way young people graduate from school and leave town. But most communities have strengths hiding in plain sight that could be leveraged. It might be a municipally-owned electric plant that can make a business case for investing in connectivity to improve its operations and extend broadband service at the same time. It might be a cultural festival with the potential to draw visitors from far away if properly marketed online. It might be a school where a few remarkable teachers are training students to work in video games and digital animation. These are all assets that small Intelligent Communities in our network have leveraged to their advantage.

Plan for small victories

The biggest obstacles to progress for small places are not the facts in front of people’s faces but the ideas between their ears. When you are convinced that nothing will change and nothing can be done, your prophecies tend to come true. The best antidote is the small, quick victory that is celebrated as one step on a longer road. Don’t be afraid to set inspiring goals, but be sure to set many milestones along the way. The milestones need to be more than check-marks on a to-do list. They need to speak to the needs and concerns of your people. They should be things that people will want to brag about because they suggest a different and better future for the place called home.

When you run into obstacles, go around

One community in our network, with just 10,000 people, launched a head-on fight with its telephone and cable TV companies for the right to offer competing service. Three years and US$2.5 million in legal fees later, they won. Within a few years, they had captured more than half the market and reached financial self-sufficiency. But it is the rare community with the political will for that kind of battle.

Instead, you can usually find a way around obstacles if you are smart and patient enough. Can’t get carriers to invest in broadband? Build a network of underground conduit while you work on the roads you own, or find a grant to fund wireless towers on public land, where private carriers can hang radios. Don’t have a college or university campus? Find an educational partner interested in something your community has to offer and work to set up a satellite campus, even if it takes years.

Look outside for inspiration

Examples from the Intelligent Community Network offer ideas you can put to work at home.

Bristol, Virginia, USA

Fighting for a broadband future – and winning.

www.intelligentcommunity.org/bristol_virginia
Hudson, Ohio, USA
Small city creating a new competitive advantage.
https://www.intelligentcommunity.org/hudson_ohio

Knowle West, Bristol, United Kingdom
A distressed district fights for a better future.
www.intelligentcommunity.org/knowle_west_bristol_england

Olds, Alberta, Canada
Small farming community becomes a tech center.
https://www.intelligentcommunity.org/olds_alberta

Parkland County, Alberta, Canada
Creating opportunities in “cottage country.”
www.intelligentcommunity.org/parkland_county_alberta

Pirai, Brazil
Partnering for progress against the odds.
www.intelligentcommunity.org/pirai

Prospect, South Australia, Australia
Suburban city builds a distinct economy of its own.
https://www.intelligentcommunity.org/prospect_south_australia

Stratford, Ontario, Canada
Turning cultural capital into tech development.
https://www.intelligentcommunity.org/stratford_ontario

Whanganui, New Zealand
Out-of-the-way city taps the global economy.
www.intelligentcommunity.org/whanganui

No two communities are alike. This step-by-step guide is based on the experiences of Intelligent Communities that have gone before you. But the results of your work will be unique to your community and create a place that its people will be proud to call their home.