Smarter Cities: Crucibles of Global Progress

Rio de Janeiro, Brazil, Nov. 9, 2011: IBM Chairman, President and CEO Samuel J. Palmisano (left), and IBM Senior Vice President and incoming President and CEO Ginni Rometty (right), receive a key to the city of Rio de Janeiro from Mayor Eduardo Paes.

Samuel J. Palmisano

SmarterCities Rio
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Welcome to Rio and to the SmarterCities forum.

I want to thank you all for joining us... for investing your time and making the trip to be here. It says a lot about you, and the cities, companies and institutions you represent.

So... why Rio? Why you, in particular? And what are we aiming for from this forum, and this program? We are here in Rio, because it is a compelling example of a new kind of actor that has appeared on the world stage—the smarter global city. Along with Shanghai, Singapore and a growing list of others, Rio de Janeiro is emerging as a major node in the emerging global urban network.

Consider this: If humans had been able to go into orbit around the Earth 100 years ago, they could have seen the light from 16 concentrations of a million or more people. Today, as the crews of the space station look down, they can see the lights of 450 shining cities of a million-plus.

Sixty-six of them are in Latin America—four of which... Rio, Sao Paulo, Buenos Aires and Mexico City... are among the world's 25 largest metropolitan areas. In 2007, for the first time ever, more than half of us were city dwellers. By 2050, that number will rise to 70 percent. We are adding the equivalent of seven New York Cities to the planet... every year.

These cities are the economic, governmental, cultural and technological power plants of an urbanizing world. And Rio de Janeiro—with a metropolitan population of more than 12 million and an annual GDP of over $200 billion—is in one of their exemplars.

If this weren't enough to mark Rio as a premier global hub, the next several years will take the city to a whole new level, as it hosts the World Cup in 2014 and the Summer Olympics in 2016. If the 'aughts were the Decade of Beijing, the two thousand-teens may very well be known as the Rio Decade.

So, just as there is no more urgent topic for leaders today than ensuring a smarter future for our cities... there is no better place to do so than Rio.

That's why here. Now, why you? Today, we are joined by almost 600 leaders-mayors... national, city and regional officials... CEOs... and urban experts from academia-from all parts of the developed and emerging markets around the world. We were planning for 300—so we are significantly oversubscribed.

That says a lot. The fact that you have made the time and effort to come here, from all over the world, and to commit to an in-depth discussion at a particularly busy season in all our calendars—suggests that you, too, sense the importance... and the opportunity... of this moment.

Because this truly is a moment of change. You and your peers are driving a historic shift—and doing so in the face of enormous challenges. Dramatic swings in geopolitics, with regimes crumbling seemingly overnight. Dizzying market volatility. Systemic failures in banking and in global security. Perhaps most urgently, in many regions, we are simultaneously confronting growing deficits and persistent unemployment.

Now, if you look at these challenges through the lens of the media, or of the political battles in many capitals and legislatures... it can seem as if this new world is getting the better of our leaders.

But underneath that...when you look at what is happening on the ground—the work being driven by forward-thinking mayors, by innovators in businesses, government agencies, universities, schools, communities and non-governmental organizations in cities around the world...including many who are here today—it's a very different story. As the cyberfiction pioneer William Gibson famously observed, "The future is already here—it's just not very evenly distributed."

So, that's another way to look at why you are here—and at the opportunity this forum represents. You embody a very different model of leadership for our economies, our communities and our societies. Over the next two days, together, we can begin to apply that leadership to map out a smarter future.

At IBM, we've seen this future taking shape in the more than 250 similar forums we have hosted all around the world over the past three years. And we see it being built every day, in the work we do with clients on more than 2,000 Smarter Cities engagements. Most important, city leaders are quantifying the value of making their systems smarter:

- Endesa - An electricity provider in Spain reduced energy use by 20 percent through real-time monitoring and smart meters.

- Bancolombia - A bank in Colombia combated fraud by analyzing more than 1.3 million transactions a day from six countries—uncovering 40 percent more suspicious transactions and generating productivity savings of nearly 80 percent.
- Integramedica - A healthcare provider in Chile is using intelligent medical records to centralize patient information and make it accessible in real time to medical practitioners.
- Singapore - A smart card system has enabled the Singapore Land Transport Authority to double its performance capacity to 20 million fare transactions per day.
- Smarter public assistance in California has helped Alameda County speed services to the poor, while saving taxpayers more than $24 million a year.

This list could go on-farm-to-fork smarter agriculture here in Brazil...smarter government services in Peru... smarter buildings in New Orleans and New York. All over the world, it's happening. How are they able to do this, when so many pundits seem to believe that progress has ground to a halt?

Why, in city after city—when you talk to mayors, commissioners, business and community leaders—are you confronted not with complaints and frustration... but with energy, imagination and fact-based optimism?

We've asked ourselves why this is so - why the view from our cities today looks so different from the view at national and international levels. I think it comes down to three fundamental characteristics, which define a new breed of global urban leader.

First, these city leaders are non-ideological. They get things done.

Perhaps that is because cities are where people actually live, work and connect with one another. That creates a very useful discipline—which national governments and national politics sometimes lack.

At those more rarefied levels, you can get pretty far removed from the realities that businesses, communities and individuals must deal with every day. But if you're a mayor, or a police chief, or the head of an urban school system, you don't have the luxury of ideology. You have to be pragmatic.

New York Times columnist David Brooks put this well in a recent column:

"It takes a lot of little zigs and zags over the terrain to get where you want to go. Mayors, governors and local officials do this all the time as they respond practically to circumstances. At the national level anybody who tries to zig and zag gets regarded as weak and traitorous by the economic values groups. There are rewards for those who fight over symbols, few for those who see the thing itself."

Think about it. What is the ideology of a transportation system? Of an energy grid? Of an urban food or water supply? Of course, different philosophies come into play at a broad policy level—such as the debates that continue to rage in the United States over healthcare.

But regardless of the outcome of those debates... the many connected systems of healthcare—from providers, to pharmaceutical researchers, to insurers, to employers, to governments—still have to be able to interact, to have a shared view of the data, to work together to ensure the health of a patient... or of a city's population.

The good news—which the leaders of smarter city systems around the world have recognized—is that we can actually dive in and act at that pragmatic level. We don't have to wait for the resolution of the ideological debates to make our city systems smarter.

If these city leaders do share an ideology, it is this: "We believe in a smarter way to get things done." And as the example of healthcare suggests, that leads to a different way of thinking.

Smarter city leaders think in terms of systems.

When you understand that the world has become pervasively instrumented and interconnected... it inevitably leads you to see our planet not as a collection of countries or industries... but as a system of systems.

There is no better example of what this looks like in practice than right here in Rio de Janeiro. Confronted with catastrophic mudslides last year, Mayor Paes and his colleagues could have focused on just one element of the challenge—for example, applying new, high-resolution weather technology to pinpoint where a tropical storm will strike. Or they could have built a smarter solution for emergency response by police... or linked healthcare services and providers to the local community. Any of those would have been ambitious.

But Rio went much farther. The command center they have built coordinates information from more than 20 city departments for real-time visualization, monitoring and orchestration of response to incidents across the entire city.

Yes, the system will be able to anticipate which hills are most likely to suffer mud slides in the event of severe weather. But beyond that, it will serve as a foundation for Rio's competitive position as a leading global city over the next century.

Rio is a stellar example—but it's not alone. Today's leaders of the smarter city are not gaming systems... they're building systems. Which leads me to their final characteristic...

Smarter city leaders think—and manage—for the long term.

The systems being created by the new breed of smarter cities don't just achieve great efficiencies today. They also generate virtuous cycles that will last for a generation or more.

This may be the most surprising and encouraging learning we've had over the past three years. It flies in the face of a world driven by short-term thinking. Without question, short-term pressures today are intense—and intensifying.

Fifty years ago, the average shareowner held an investment in most companies for about eight years. Today, that's down to six months. In the past 15 years, CEO turnover has increased by about 50%. And I don't think I need to point out the impact of endless electoral cycles on our politics.

And yet, we have hundreds of examples of urban innovators who are investing strategically, thinking systemically and managing for the long term.

What does this look like in practice?

- For one thing, it doesn't confuse charisma for leadership. The first job of a leader is to enable the organization to succeed without him or her. This is something that elected leaders may understand better than CEOs—especially CEOs who are founders of their companies. But it applies to any organization—whether a corporation or a university or a government. The key to long-term survival and success isn't to create a cult of personality. The key is to deliberately build a healthy and sustainable culture.

- Long-term thinking also recognizes that complex systems cannot be managed by traditional hierarchies. These systems are distributed, not centralized... inherently multi-stakeholder... continually evolving and adapting. To lead in that reality, you must begin not by talking, but by listening. And you must replace command-and-control with shoulder-to-shoulder collaboration across traditional boundaries—public and private sector..science and society..nation to nation... even with your competitors.
- A long-term view teaches you that your biggest challenge may not be surviving your failures, but your successes. History is a bone pile of enterprises, cities and societies that had great first acts, but were unable to achieve a second. Why? In most cases, it is because they couldn't break their emotional attachment to what had brought them success in the past. This means, in part, that you have to keep creating new spaces to move into—by investing in R&D through good times and bad.

This is something IBM learned early and never forgot—demonstrated again by the opening of our ninth global research lab here in Brazil. This commitment to R&D requires a kind of institutional patience, because the upside benefits rarely come this quarter, or this year.

We've thought about this a lot this year, as IBM has marked its centennial as a corporation. Obviously, that's unusual for any business—especially so in the technology industry. But in truth, the same need for long-term thinking applies to governments, universities, research institutions and NGOs.

You all have to resist short-term pressures... for us, the pressures of 90-day earnings; for you, election cycles and perpetual fund-raising drives. Like us, you all have sacred cows. You need to bring people along—people you don't control. And you, too, must have a sense of purpose. You must be clear on your future objective—and obviously, that shouldn't just be to stay in power.

We hear today about a "crisis of leadership." And without question, much of what is happening at national and international levels is engendering dismay, anger, even despair. But underneath the media's radar... closer to the ground, in the cities where most of humanity actually lives and works... there is another model taking shape.

This new generation of leaders is innovating and driving progress. These women and men are seizing upon the vast quantities of data their cities generate to drive growth and sustainability in the face of unprecedented urbanization, economic and technological change and increasing social mobility.

Indeed, I would put it to you that the world's emerging global cities are the crucible in which a new model of leadership is being forged... a new generation of forward-thinkers who are making our world literally work better: from police and fire chiefs... to education and transit commissioners... to mayors and community organizers.

So, when you hear pundits and politicians—especially in the mature economies—say that there is nothing to be done... that our institutions and politics and processes are hopelessly broken... remember the city leaders you will meet and hear about in Rio over these two days. You and I know the truth: There is always something to be done.

Indeed, we know that the flip side of every crisis is a vast new opportunity for progress. We also know that it won't be grasped simply by the ever-louder pounding of fists on tables. This isn't a question of willpower. It's a question of taking a fresh look at how the world actually works. And then it's about diving in and acting—together, in new ways—to make it work better.

The good news, ladies and gentlemen, is that we have an enormous new natural resource at our disposal—a gusher of data that enables us to literally see and understand our world as never before... along with the means to extract and apply it.

What the discovery of the Western hemisphere was to the 15th century... and the discovery of steam power was to the 18th century...and the discovery of electricity was to the 19th century... the explosion of data is to the 21st. Its economic and societal value is almost incalculable. If we seize upon this new resource, I believe future historians will look back on this moment... not as the start of a so-called "new normal" of lowered expectations—nor as a bifurcation of the world into old and new... or have and have-not—but as the dawn of a new golden age of innovation, widely shared economic growth and global citizenship.

So, let's use the next two days to think together about what this new urban age could be... and then roll up our sleeves for a collaborative work session on how to build it.

Personally, I can't wait to get started.

Thank you.

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