

GIO Podcast Series: Transcript for Using Innovation to Drive Environmental Regulation
An Innovation Conversation with IBM and Alcoa

Transcript Title: Using Innovation to Drive Environmental Regulation

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Summary: Dr. Pat Atkins, Director for Energy Innovation, Alcoa, and Wayne Balta, Vice President, Corporate Environmental Affairs and Product Safety at IBM, discuss the numerous environmental challenges facing the world today and suggest ways how we as enterprises and individuals should collectively deal with these complex issues.



Host: Amy Hermes, Global Innovation Outlook, IBM

HERMES: Hello, and welcome to TheInnovationValue.com. I'm Amy Hermes. The environmental issues facing us throughout the world are numerous and complex. In fact, you can barely turn a page in the newspaper without seeing a story on the challenges of integrating social responsibility and economic considerations with the need for global sustainability.

We're joined today by two leaders in this space: Dr. Pat Atkins, who is the Director for Energy Innovation for Alcoa, and Wayne Balta, who is Vice President, Corporate Environmental Affairs and Product Safety at IBM. Gentlemen, welcome to you both and thanks for joining us today.

ATKINS: Thanks for the opportunity.

BALTA: Amy, happy to be with you this morning.

HERMES: We find ourselves once again in a situation of high oil prices driven by world events. Although various economies are taking high oil prices in stride, one can't help feeling uneasy. How should we collectively deal with

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this issue?

ATKINS: I think the oil situation is an indication of the energy situation that we will be facing, and is a surrogate for the resource situation that will face our grandchildren and others.

So I think we need to address the oil situation by learning how to use energy more efficiently, learning how to understand where the wastes come from and to address those wastes, because I think there is ample energy in the world. Energy is all around us but we have not done a very good job of trying to utilize that energy in the most sustainable fashion.

BALTA: I think Pat makes a really nice point about energy being a surrogate for the resource challenges that future generations will face. And to some extent it's almost a shame that the price of oil has to be as high as it is for many of us to pay the amount of attention to energy consumption that we really should pay.

But now with the price being where it is, why, of course, everybody is increasingly sensitive to it. It seems that we clearly have to think much more broadly and in a much more innovative way about sources of energy, how it's generated, how it's distributed. We have to think a lot further about

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where we actually consume our energy.

I think in a lot of cases, at least for business enterprises around the world, there's room for a better understanding of exactly where it is that we're consuming the energy we consume.

And the more we measure and manage that and the more we pay attention to alternate and innovative sources, you could look at the glass is half full and our future as promising as long as we continue to grasp the problems at hand.

HERMES: How do you think legislation plays in?

ATKINS: I think there will be some significant energy-related legislation that will impact all of us, and I base that on my experience where 30 to 40 years ago when I first began working in the environmental field there was a significant amount of pushback about what can be done in the environmental area and still maintain a viable economy.

Many of us, including me, argued that if we have to reduce emissions as far as people say we have to reduce them to maintain a healthy environment, we would have to go out of business.

Nevertheless, regulations came in and made the playing field

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a bit more level and the legislation showed that it is possible to maintain a sustainable environment and have a viable economy.

I think that same thing is going to happen in energy, if people don't understand the significance of the energy issue and say, well, I can afford to pay more for natural gas, or I can afford to pay more for oil, or I can afford to turn my air conditioner down a little more because I happen to be wealthy, will not cut it in the future. There will be limitations. You will not be allowed to operate unit operations and industrial plants that don't meet a certain efficiency level. If it's not done on a voluntary basis, you'll be required to approach theoretical efficiencies through legislative means.

It's not the most efficient way to solve a problem, but it is a way to solve a problem. And I think the environmental legislative journey that we've been on for the last 35 years is an indication of what can happen in the energy area if we continue to pretend there's not a problem and feel that we can spend our way out of the problem.

BALTA: I would add that business in general really prefers to be able to operate without too much control via laws and regulations over what it does.

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And there's very good reason for that. And certainly in my time at IBM I've advocated that on several occasions. Having said that, it does require a degree of responsibility by business to earn that, *modus operandi*.

On the other hand, there is often a proper role for law and regulation. As Pat mentioned, it can sometimes serve to level the playing field. It lets us live under the rule of law that we prefer. Heck, we have a whole branch of our government dedicated to creating laws and regulations. So you know there is a role for it.

Now, in the energy situation, I personally think that in the near future we will see some sort of legislative activity surrounding carbon trading. Today, for example, there exists some voluntary places where you can trade carbon credits. IBM for example is a member of the Chicago Climate Exchange where we're presently doing this on a voluntary basis.

You've seen some recent publicity in California. You see some trading exchanges beginning to emerge in the EU.

So I think it's likely personally in the next ten years, plus or minus, that we'll see much more rigorous trading in carbon emissions and carbon credits. And whether that's mandated by legislation or whether it's brought about by global business practice, I think that's an example of one thing that's

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coming.

HERMES: Another looming issue is that of climate change and warming. Can you talk a little bit about if you think it's really a problem, and if you do, do companies like ours have a moral obligation to show leadership here?

ATKINS: Climate change is a grand experiment. And I think it's going to determine whether human society is really capable of looking beyond their own needs.

As Wayne said, climate change is going to manifest itself relatively slowly, over years, decades, and maybe even centuries. But it's going to happen.

And the results are going to be felt by not the people today who are worried about \$3 gasoline or their electricity bill at home, but the people that follow them, maybe their grandchildren, maybe their great grandchildren.

So the grand experiment is going to be, will people today as a species, be able to address the issue by sacrificing something today for the generations that follow us; or, will we continue to say that's somebody else's problem and when the problem occurs let them take care of it.

I hope the outcome is that human society is able to think

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beyond their own needs and think about the future generations as a whole and will address it.

And to answer your specific question, yes, I think climate change is real. I think it's occurring. I think it will continue to accelerate.

And I think companies like mine, Alcoa, have an obligation to show leadership not only in what we do in terms of contributing to the problem, but what we do in terms of contributing to the solution, through the design of the products and the services that we can make available to current customers and future customers.

HERMES: Wayne, same question.

BALTA: Well, I certainly echo and underscore what Pat said. I personally do believe that the climate is changing. Having said that, I'm far from an expert on the science.

But what I do is look at the consensus opinion of recognized experts in the field. And the consensus opinion is indeed that the climate is changing.

And so you have to ask yourself the kind of questions that Pat just went through, and that is, do you feel the responsibility to do something about it today? Or do you

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allow yourself to think it's okay to defer decision making with the awareness that your deferral could lay on some future generations problems that are more difficult to solve than they might be if they're addressed today.

Pat really hit the nail on the head with that dilemma.

I do believe the climate is changing. I do believe companies have an obligation to act responsibly. Pat and I are privileged to work at companies that do take the responsibility and work regularly to demonstrate that behavior and to share best practices with others and learn from each other. But you know the answer to your question is yes.

HERMES: You were both recently involved in the Global Innovation Outlook where concerns were raised about water situations in parts of the world: water shortages, depleted aquifers, pollution and poor quality, lakes and reservoirs drying up and so on. Are we headed into a water crisis in the near future? And if we are, what major steps can be taken to avert such a crisis?

ATKINS: I guess my answer is no. We're not headed into a water crisis; we are in a water crisis. Too late to say, hey, we're headed there; we're already there. I just read in a little internal news report that Alcoa has yesterday that

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Australia has passed some national legislation that 30 percent of the waste water produced by industrial activities in Australia must be recycled and reused within a time frame, probably five to eight years, I believe.

But it's a legislative mandate that says water is a significant issue for us and we can no longer look at water as an unlimited resource that we can use and discard. And the initial approach they're taking is, you must recycle 30 percent of that water. I think that's an indication of what's going to be happening throughout the world.

I've said within Alcoa a number of times that energy is a big issue, it's a problem, but if you really look at energy, you can see some ways to address the world's long-term energy needs, when you've got great energy resources. And the sun gives us a thousand times more energy than we really need.

So there are solutions to the energy problem, but the more I think about the water problem and the more I wake up at two o'clock in the morning thinking about issues, the harder it is for me to see the solution to water. Water is a finite resource on the earth. We are very good at contaminating it.

We are very good at disrupting it. We have proven very good at misusing it. Civilizations as far back as Mayans and the Incas misused the water to the point where the land went

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fallow and they had to do something than differently. We're doing that same thing on a much larger scale, and I don't see the solution.

I think the current attitudes towards water as a common resource or a free resource for people to use as the best way they can is not the model that's going to allow us to have enough clean water for all of the people that will need clean water in the long term.

BALTA: You know, Pat, you make a really neat point about the difference between the energy crisis and water crisis. Energy, as you indicate, there are present or in the near future alternate ways to produce energy and create it.

When you say the water is a finite resource, that makes the point loud and clear that it's something we've got to either carefully manage or better manage.

You could see water as an increasingly important element of foreign policy and particularly as people, in countries where water resources become scarce, need to adapt or move elsewhere in order to access fresh water.

And how do governments deal with that across borders. It has the potential to become a very important global issue, if it already isn't, as Pat you've sort of indicated.

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ATKINS: When I was in Sydney, Australia, about five years ago, there was a significant drought in the eastern part of Australia.

And the city of Sydney was under water rationing, and they were having difficulties reducing the water use. And I saw a very innovative approach there. They began in the newspaper, on a monthly basis, reporting water use per, I think it was individual, per postal zone. We'd call that the zip code in the United States.

So you would look at your zip code or your postal zone, and go down and see what the average water use in your community was. And it would rank them from the highest to the lowest, which parts of Sydney were doing their share to address a real water crisis, which parts of Sydney were not doing their share.

And by providing people with this information and also with the information about what's possible or what others are doing, they were able to see a significant change in their water use by just alerting people that, one, there is a problem. Two, some people are doing something about it and are being successful, and, three, you may not be doing as much as you could do.

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And I've always kept that in the back of my mind as maybe that's the solution. If there's some way we can tell people, you have to make the assumption that most people want to do the right thing. They want to do things that will help their children and grandchildren and people beyond those generations.

And if they just had the information, the knowledge and the understanding of what's possible in an easily understood way, it would be amazing what the human race could do to address complex issues.

So I use the microcosm of Sydney as, if there were a way to do that worldwide that might be an interesting approach to both energy, water resource management, health systems, a whole variety of things.

BALTA: Yes, Pat, it's a great idea. I'm glad you brought that up. It sort of reminds me of the old saying, what gets measured gets managed.

And as long as we can apply innovation and perhaps technology or innovative business processes, and credibly measure things like consumption and use, and share that information so people can see it and understand it, that can go an awful long way towards positive changes in behavior.

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HERMES: There's also the issue of personal versus organizational responsibility in solving some of the societal issues that we've already discussed. So where does one draw the line? Should organizations and consumers be held jointly and legally responsible?

ATKINS: That's a hot button for me. I think I continue to say that none of us are as smart as all of us and the only way we're going to solve the really, really hard problems are to engage as many people as possible in the solution.

So when we talk within Alcoa about addressing greenhouse gasses, but what can Alcoa do but what can 129,000 people that work in Alcoa also do.

Can we look at individual greenhouse gas challenges as well as coming to Alcoa and saying, hey, why don't we plant trees over in this area of the plant that no one has used for 10 years and use it as a carbon sink.

People nearest the potential solutions are usually the ones that have the best grasp on how to solve the problem. So I am very much an advocate that this is not someone else's problem, this is each one of our problems. And that we need to solve it both personally and through the organizations with whom we are associated.

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BALTA: Amen, for sure. The concept of personal responsibility is going to be increasingly apparent and important.

If you think about it, Amy, a company like Alcoa, or a company like IBM, is not a person. It's simply a collection of individuals.

And so in the final analysis, whenever IBM does something well or comes up short, it's not that some company did it, it's that it's a collection of individuals, which I am one, either achieved it or underachieved.

So the question always becomes in an organization, how do you continually help people recognize that it is only through their individual effort that we'll make positive change.

And there's a lot of examples of how well this can be done, but at the end of the day it isn't a company that leaves the lights on in your office, it's you as an individual or as a person. It isn't a company that puts the newspaper in the recycling bin. It's you as a person. You either do it or you don't.

So clearly we as individuals do have the most direct role in effecting positive change for the environment. And it's up to each of us to realize our opportunity, our sense of

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responsibility and our ability to do something about it.

HERMES: So this brings me to our final question. In over a decade or so of acute environmental awareness I'm not sure that sustainable development's really caught the imagination of corporations around the world and not just in developing countries.

By this I don't just mean pollution control or product lifecycle management, but that any decision by a company should not worsen the environmental footprint. How close do you think companies are to such an ideal and will shareholders ever demand such strategies?

ATKINS: I think there are a number of enterprises that are becoming quite adroit at dealing with the sustainability issue and are developing philosophies and policies of do as little harm as possible to do no harm, and now I think there are entities that are saying we won't do anything unless it has a positive impact on sustainability.

So I think the progression is starting and will be accelerating. And in my opinion there are good business cases for this. You can make money at it to provide the returns to the people that are investing in your enterprise, and you can provide a benefit to society in terms of the sustainable nature of the goods or services that you're

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providing.

So I'm encouraged by the small things that I've seen so far, the few companies and enterprises that I've seen so far that are taking this approach.

And I believe if we nurture that properly and do the accounting properly, more and more entities will understand this and will be able to change their operational models to achieve the goal of actually improving things rather than doing as little harm as possible.

HERMES: Wayne?

BALTA: Yes, it's a great question as we wrap up our time together. Back in the late eighties, around 1987, came the publication of something known as the Brundtland Report called *Our Common Future*.

And many people regard the report, *Our Common Future*, as what really got sustainable development kicked off in the business world and with governments as a top of mind share concept.

I just the other day read an update from someone who participated with IBM in the Global Innovation Outlook, Bjorn Stigson, and he wrote a note in which he said, the 20th anniversary of the Brundtland Commission Report, *Our Common*

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Future, is just around the corner.

I personally am optimistic and the reason is because if you look at the number of organizations and enterprises around the world that routinely speak about sustainable development today, I do believe that it is much greater than was the case 20 years ago.

Now, certainly many, including me, and perhaps Pat and others, might say that, you know, not enough has occurred that we'd like to see occur. But there are many positive indicators: the number of organizations involved. Not just governments, but non governmental organizations, the number of businesses that speak about sustainability in their strategic thinking, and the extent to which the concept is global.

And that's really important because today, as some of the most rapid growth rates are occurring in countries like Brazil, Russia, India, China, you increasingly find leaders of enterprises in those locales, whether those leaders are the head of a company or governmental agency or a non governmental organization, speaking routinely about sustainability.

And so I see that as a cause for optimism. And I see that as an indicator that, you know, we do have a common future. We

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don't have it solved yet, but we are collectively, on a global basis, irrespective of country borders, thinking about the right issues and increasingly looking for innovation and innovative technologies and how they can help us define exactly how our common future will come to pass.

HERMES: Well, thanks, gentlemen. I appreciate both of you joining us today to share your knowledge on existing and emerging environmental challenges and potentially some of the solutions. Dr. Pat Atkins of Alcoa and Wayne Balta of IBM, thank you both very much.

BALTA: This has been a great discussion. Pat, good to speak to you. Amy, thank you.

ATKINS: Enjoyed it.

HERMES: Thanks both again. This has been a podcast from TheInnovationValue.com.

[END OF SEGMENT]