

# Business Excellence Magazine

## Special treatment

**Hollis Cole, P.Eng., CEO of ADI Group, tells Martin Ashcroft how its patented processes have helped the company grow from an engineering consultancy into an international provider of turn-key solutions**

Niche markets are often the basis of a successful strategy because they target areas where there is limited competition, partly due to disinterest from large businesses and/or lack of awareness on the part of small specialist companies. Over the last 60 years, ADI has built extensive expertise in a range of professional services, and has put this to use in creating several niches that, in some cases, eliminate competition altogether.

ADI provides architecture, engineering, project and construction management, environmental management, design-build services, and water and wastewater treatment solutions plus membrane cover systems to industries and governments worldwide. Not an obvious market for a niche, you might think, but ADI has made it so.

Founded in New Brunswick, Canada in 1945 as Moore and Beattie, Civil and Structural Engineers, its name evolved with its expanding service offering into Associated Designers and Inspectors in 1952, soon becoming known informally as ADI. It now has twelve offices all over Atlantic Canada and also in Salem, New Hampshire, and Fairfield, Maine. With the economy booming in the west, ADI opened an office in Alberta to further extend its reach.

There are now four companies in the group. “ADI Limited does the design and engineering work,” explains CEO Hollis Cole. “ADI Systems is the general contractor, the project manager that puts it all together.” After that there is Geomembrane Technologies, which designs, fabricates, and installs innovative tank and lagoon cover systems for municipal and industrial wastewater treatment plants, in addition to covers for water plants. It has expanded to agricultural covers, a market which shows a lot of promise. ADI International offers turn-key services around the world, including proprietary water treatment technology, industrial plants, buildings, infrastructure, and process equipment.

Niches are created by ADI’s combination of expertise, protected by a string of patented processes in water and wastewater treatments, geomembrane cover systems and hydrogen sulfide removal from gas streams, and the fact that ADI eschews straightforward projects that attract a multitude of competitors. “Unless the project requires our specialty expertise, we try to stay away from it,” says Cole. He

remembers a project for a pulp mill, collecting off-gases to reduce sulfur emissions. “We had the expertise to determine where all the sources were, what there was in each location, the quantity and quality, how to bring it all to one point and how to burn it,” he says. “So when we sat down with the client, there wasn’t any competition. There was no other firm that could do that. The client could have brought in a firm from Europe, a bigger company that had done that kind of work before, but it was only a \$6 - \$7 million job so it wasn’t of interest to a group thousands of miles away. We negotiated a price and the customer was satisfied and we were satisfied.”

The idea for patenting its processes came from hard experience, and has proved to be the single most valuable element of ADI’s strategy. “We started out as a consulting engineering and architectural firm in 1945,” explains Cole. “As we grew in the ’70s we started branching out into becoming a turn-key provider of solutions, focusing on niche markets. We first started the anaerobic systems (for waste treatment) in the mid ’70s as a designer. As we reached the mid ’80s we realized we were simply acting as a consultant.” That meant, he says, that ADI had to take care of any problems, but the contractors made all the money. “So we decided to build the systems ourselves as a turn-key provider using our own patented processes. Having more responsibility has more risks, but also has more rewards.”

One of the principal processes it has patented in the wastewater business is ADI-BVF<sup>®</sup>, a low-rate anaerobic system. “The detailed design is quite intricate for each installation and attention at the construction management stage is critical to a successful project,” says Cole, “but since our process design is patented, we can provide the whole package as a turn-key operation, even though a significant amount of the cost is related to traditional concrete tanks, pumps, piping, and so on.”

The same now applies to the floating geomembrane covers ADI developed in the early ’90s. The company controls everything from design to installation. ADI buys geomembrane sheet in rolls, and fabricates it into panels up to 300 feet long by 100 feet wide. “After we have designed the cover to meet a customized fit, we fabricate it ourselves and can containerize the finished cover. We then ship it to a site and install it on a tank with our own people. We will not design a cover unless we’re fabricating it and installing it.” Cole believes the geomembrane cover has advantages over competitors’ fixed covers like aluminum domes or fiberglass. “Ours are removable,” he says, “for maintenance on equipment, to view what’s happening with the contents, to do cleanouts, and annual inspections – our removeable covers save operators time.”

On the water side, he continues, ADI focuses principally in arsenic removal systems, where it has patented a process to make a product called Media G2<sup>®</sup>. Again the service is provided as a package. “We sell the product,” he says, “with all the equipment and controls that make it work. The system involves tanks, control systems, and piping valves. We supply the whole system as a package, not just the product that goes in the tank. And most importantly for all our systems, our people are available for after-care follow-up. They designed the systems and they know how they work. There is a huge “peace-of-mind” factor in dealing with ADI.”

Media G2<sup>®</sup> is an award winning product (a 2006 Innovation award from the Canadian Manufacturers and Exporters Association, in conjunction with the National Research Council) of which ADI is justly proud. With the current publicity surrounding environmental initiatives you’d think this would be a booming business, but some

municipalities have been slow to act, says Cole. While 80 percent of ADI's revenue comes from water treatment or wastewater systems, and most of the projects are in the United States, says Cole, it could do much more business as municipalities begin to adhere to the new arsenic regulations set out by the US EPA," he points out, "once the regulations are enforced, we will sell more of our Media G2<sup>®</sup> arsenic removal product. It's the same with wastewater treatment for industry. In the environmental business, if you don't have regulation or enforcement, not a lot happens."

Citizens are demanding industries and governments take the environment seriously. ADI has built a solid reputation on helping industry minimize their impact on the environment. "Some regulators instruct companies to complete study after study, rather than starting environmental projects," he recalls. "One company we dealt with laughed for two years, because they spent \$50,000 on a study instead of \$5 million on a project." ADI got the contract in the end, but the study, he says, was a waste of time and money, and delayed the installation of an important treatment system unnecessarily. Communities across the United States are suffering from inaction rather than complying with existing regulations and dealing with infractions.

So Cole is not too fond of inaction, but his complaint is not that regulations are too strict; quite the opposite. Better enforcement of regulations would be better for ADI's business, and for the environment. "My perception of regulators is that they want to do a good job," he says. "They'll get involved in all the nuts and bolts and how the owner or the contractor is going to get the end result. This takes an inordinate amount of time, a whole lot of money and things simply get put off."

ADI is as focused in its international strategy as it is at home, targeting countries that are good places to work, and concentrating on turn-key projects. "We're doing quite a bit of work in South East Asia," he says, "and Australia is a good market as well. We've done some work in England, and Europe, however ADI avoids the Middle East, for obvious political reasons. We will only do work in countries where we know our on-site employees are in a safe, secure environment." China, he says, does business totally differently than North America, however once establishing a presence and working with local partners, business can be good.

North America is by far the best place to do business, he insists, but he appreciates the extra value the company gets from its international trade. "In doing business internationally and working in a variety of different places, you gain a lot of experience, and are exposed to new ideas. You can never gain that kind of insight by staying in one market. Employees are exposed to so much more - it makes you so much better and gives you the confidence that you can tackle anything, anywhere."

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