



Using their Microwave Assisted Processing™, Radiant Technologies Inc. is providing High-Speed Extraction Solutions for Natural Materials for Nutraceutical, Pharmaceutical, Personal Care, Natural Health, Cannabis, Food and Beverage Companies



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CEOCFO: Mr. Taschuk, would you tell us about Radiant Technologies?

Mr. Taschuk: Radiant Technologies provides superior high-speed extraction solutions for natural materials. Using our patented, proprietary MAP™ technology we are able to extract, isolate and purify actives and chemicals that are found in these natural materials. Our clients are companies in the nutraceutical, pharmaceutical, personal care, natural health, and food and beverage industries that are using naturally derived ingredients in their various products. Radiant is able to work with these companies to provide cost-efficient extraction solutions for these naturally derived products. What makes us unique is that we do this with our Microwave Assisted Processing, or MAP™, technology. Simply put, Radiant is a technology that is potentially disruptive to the marketplace.

CEOCFO: Would you explain the technology?

Mr. Taschuk: We take the natural materials, and we treat them with microwave energy, which is very safe by the way, safer than your microwave oven at home. We use ethanol as a solvent in our process, which is considered a “green” chemical and allows us to call ourselves a green chemistry company. Effectively what happens is that there are water molecules present in the biomass, and when you treat them with microwaves, the microwave energy is absorbed by those water molecules. This creates a steam-driven process inside the material, which very quickly drives your chemicals of interest into your solvent carrier. This happens in a matter of minutes and there are significant benefits to our technology in terms of the time it takes to perform the extraction – we are talking minutes rather than hours or days. We use significantly less solvent and we use significantly less energy in our process. There are benefits in terms of product quality, there are benefits in terms of how much biomass we can process, and it allows us to actually generate new and novel products and extracts as a result of the use of the technology.

CEOCFO: Are you extracting something new because a customer has requested it, or are you essentially doing research and presenting to the market what you have created?

Mr. Taschuk: Right now it is largely a market pull. We are working with companies around the world and many of them are global leaders in their various industries. In a lot of cases, these companies have exhausted their abilities to work with current extraction technologies in terms of development of new products and other challenges, such as the amount of biomass they need to process. They will come to us and work with us to either improve the quality of existing products or alternatively, look at doing some novel work to develop a new product. We do have the ability to create our own products for the market, we have done a bit of that, but right now the primary focus is having a market pull where customers are coming to us asking for certain things.

CEOFO: *How do people know what to look for?*

Mr. Taschuk: Generally speaking these companies have done some basic research on various plant materials. They have characterized certain chemicals found in the plant and believe that these targeted chemicals can be extracted in a certain fashion and then developed into the products. There may be a base of core knowledge on a particular plant material that exists already, or they may be working with a plant material in a way that has not been done before, but they know that there are certain markers in there that they are trying to target. In some cases these companies can be reasonably specific about what they are looking for. In other cases, it may be that they are looking to do a bit of research in terms of product development and they need our assistance to help them do that, so that they can then further characterize, extract, and then identify what is interesting, what is active and what is going to be used potentially in terms of their product. Generally speaking, when companies come to us if they have thought through on the basic research side what they are looking for and are having problems obtaining what they are trying to do, or they need somebody that they can partner with to take them through the next step to development into a marketable product.

CEOFO: *Would you give us an example?*

Mr. Taschuk: I can give you an example from the pharmaceutical industry where we were working with a biotech client and the biotech client was working with a very rare biomass that had a very low active concentration. The target compound was present in almost miniscule amounts in the plant. They were developing an anticancer therapeutic that they wanted to take through clinical trials. This particular company had asked three separate companies, Radiant included, to create a high purity compound for their anticancer target. They knew what the compound was and they needed a highly purified form. We were the only company of the three that was able to extract, isolate, and purify this particular compound, that they could in fact use in a clinical trial for this anticancer therapeutic.

“One of the recent developments in Canada is the realization of cannabis for medical purposes, and soon to be for recreational purposes. In that case we demonstrated very clearly the efficacy of our extraction technology coupled with the ability to process cannabis on an industrial scale.”- Denis Taschuk

CEOFO: *In a case like that, does that client care about the process?*

Mr. Taschuk: It depends on the situation. In this case, the client was looking for something that would get them what they were looking for, which was a highly purified product. There are other companies that actually do care about the process. Sometimes we replace a current process as we go through improvement of the product, for example we have replaced processes where they were using toxic chemicals in the extraction. In that case they very much do care about what process we use. There are other examples where we are creating something such as novel flavor profiles, in which case our process allows us to generate these novel profiles, and they cannot be replicated by other technologies. As a result, the process there is the winner because you then have the ability to generate these novel profiles.

CEOFO: *How did you know that microwaves would be good?*

Mr. Taschuk: There has been a large body of research on different forms of extraction over the years and it is always a challenge to extract compounds from natural materials. You are trying to do things quickly, you are trying to do things as inexpensively as possible and as robustly as possible in terms of product quality. Microwaves were targeted back a number of years ago as having potential to be used in many different applications. But in terms of the extraction of active ingredients, the challenge over the last twenty-plus years has been that there has been a lot of reasonably successful research work that has died at the bench in terms of commercializing the technology. That has been a significant struggle as the research community has identified opportunities, and that is where we fit in well, because we identified the technology early and brought it in and then developed it further. We are the company that has managed to industrialize the technology for extraction purposes. We are the company in the world that can do this at a very large scale and that has been a restricted component to the technology for a number of years.

CEOFO: *Is the industry aware of Radiant?*

Mr. Taschuk: It depends on what industry you are speaking of. We serve a number of different industries that are using naturally derived products, and many have their own extraction activities in-house that use other conventional technologies. The sophisticated companies within these industries are very much aware of microwave extraction and are quite interested once they speak to us, especially once they have heard that we have managed to industrialize the technology. There is a growing awareness of the technology in these spaces and we are finding given the fact that we are talking to global leaders in each of the verticals that very quickly our name is getting out there. We have a very public example of success of the technology here in Canada. One of the recent developments in Canada is the realization of cannabis for medical purposes, and soon to be for recreational purposes. In that case we demonstrated very clearly the

efficacy of our extraction technology coupled with the ability to process cannabis on an industrial scale. The profile of the company has substantially increased and anybody within that particular industry is very much aware of the technology and what Radiant does and can do, very clearly by the number of participants that are ringing us up these days asking us for our assistance.

CEOCFO: *Would you tell us about Radiant being recognized as one of the top TSX Venture 50 companies in Canada?*

Mr. Taschuk: Most notably we were number one in our particular category, which was Diversified Industries. For us it is exciting because it represents a very substantial increase in profile as a result of our activities. The TSX Venture 50 is driven by shareholder activity and it speaks to things like changes in market capitalization, changes in share price and changes in trading volume. All of that is shareholder driven and given the level of trading activity that we see in the company having changed so much over the last number of months, it tells you that there is an investing audience particularly in Canada and the US, and Europe as well, that is noticing the company – and by virtue of the fact that we have been recognized as a TSX Venture 50 company, that knowledge of what Radiant is doing has increased almost exponentially. For us it is a big deal.

CEOCFO: *How are you reaching out and spreading the word?*

Mr. Taschuk: With potential customers, a lot of what we do is targeted marketing. We know who we want to target in various industries. The easiest ways for us to communicate with these companies tends to be through the tradeshow, and it is an opportunity to meet with some of the companies and discuss the opportunities that we can bring to the table for them. The other is through our marketing and business development team, where there are very strong world-class people that we have who have a large role and are in constant communication with senior players at a number of companies and industries - and we have great pathways to discuss challenges and opportunities. In terms of communicating with investors, a lot of that is done through tradeshow and conferences, some of it is done through marketing, through to institutional shareholders as well as retail outlets.

CEOCFO: *What should we expect if we look a year from now at Radiant?*

Mr. Taschuk: There are three key points, starting with the fact that we started commercial activities in 2016. What you are going to see later this year and into next, is that those commercial activities will take an uptick in terms of what our revenues look like. Here in Canada we have a couple of licenses we have to finalize and obtain through Health Canada, which will allow us to pursue the production of cannabis oils and further processing of materials. We have entered into a series of long-term agreements with a number of cannabis industry players that will lead to meaningful revenues very quickly post-licensing. We will be looking to do a couple levels of expansion over the next twelve months. One will be largely at our facility here in western Canada. We also will be looking at having some form of meaningful footprint in Europe as well, notably in the EU. If I looked twelve months ahead and summarized those three key points: number one we would have a pathway to meaningful revenues, number two we would have an expanded footprint in western Canada, and number three we would be increasing our footprint in the EU.



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