



ProSep

Expert Series

With Greg Hallhan, Chief Operating Officer



What is your role at ProSep? How long have you been here? What do you like about working there?

Currently, I am the Chief Operating Officer overseeing the Engineering and Proposals groups. I've been with ProSep for over 10 years. Early on, I worked with our proprietary technologies, both for our water treatment technologies and enhanced mixer technologies, and helped develop new applications and standardized processes for both.

What I like the most about working within ProSep is the company personnel. When your company's objective is to bring new technologies to market for wider adoption, it forces your personnel to think critically about the customer's needs, their concerns about the technology adoption, and other hurdles and obstacles to full implementation. I'm continually surprised as the ingenuity that our teams show's, whether it's their ability to think 'outside the box' or their responsiveness to customers, and the continuous process improvement and adaptation of our technologies into new markets and applications.

Lastly, ProSep has been fortunate to have a committed financial support of our majority owner EV Private Equity out of Stavanger, Norway. Their continued guidance and support as well as their connections within the oil and gas community have allowed ProSep to have the opportunities required with taking new technologies to market.

A big topic in the industry just now is the energy transition. I'm interested to know your view on this topic and how are you adapting to that focus at ProSep?

To me, Energy Transition is a broad term, but it generally deals with the electrification of certain modern amenities, for instance our electrical grid and ground transportation and transitioning those amenities away from fossil fuel driven activities, and toward renewable energy sources. Coupled into that definition is the accepted principle that man-made CO₂ release has increased global temperatures, and that dealing with CO₂ emissions via capture will need to be part of the plan to help stabilize climate change.

For ProSep, this has meant taking a deep look at our technologies, viewing changes in the industry, and considering where our technologies can play a role in this Energy Transition. ProSep used the Summer of 2021 to look into multiple industries and application ideas, and two that struck us as complementary to our current offerings were lithium extraction and CO₂ capture.

ProSep's Osorb Media Systems is being developed for lithium extraction recovery from brines and we have already shown some great success. This innovation will help bring much needed lithium to the growing lithium ion battery market that is currently part of this energy transition.

CO₂ capture is essentially a mass transfer and adsorption process, and this is something our enhanced inline mixers are exceedingly great at. We've taken what we know and learned from H₂S capture and H₂O dehydration, and have applied it to the CO₂ capture market.

You have been in the energy industry for almost 15 years – what broader changes have you seen? Would you change any of them?

Well there has certainly been many changes along the way along with several swings with the price of oil and gas. The first change I noticed was early in career, and advent of horizontal drilling and shale formations favored companies that were quick and nimble, while large projects globally seemed to linger due to shifting demand and oil price.

More broadly, there's been a change in how the operators view their assets, and how they can best bring those assets to market, all under the umbrella of Energy Transition. For instance, natural gas was previously seen as a hindrance to oil production, and was flared on site. Now, natural gas and LNG, markets that ProSep's technologies also fit, are seen as crucial to the overall Energy Transition.

With what's happening in Russia the world is talking about "Energy Security" – what does that mean for you? How do you see the world's energy needs evolving in the next 3-5 and 10-20 years?

For ProSep Energy Security and Energy Transition, to ProSep, are the two sides of the same coin. It's not possible politically to transition your source of energy production if you haven't developed the new source that will take it's place. So transitioning from one type of energy to another has to be done with Energy Security in mind, basically the ability to provide the same level of amenity to all citizens as the transition is occurring.

But Energy Security is also about being realistic about where your sources of energy are coming from, and whether those sources are reliable, and can't be cut off in a moment's notice. Transitioning to renewable energy sources, where most applicable, helps to secure energy for country's citizenry as the assets are typically locally owned and operated, and so are not subject to geo-political forces.

Both of them, Energy Security and Energy Transition, are complicated and will require a balancing act on the part of governments, operators, and energy service providers. ProSep is thus with 1 foot in each world, traditional fossil fuel energy and renewable energy / CO2 capture markets. In the next three to five years, I believe the technologies required to transition will go through a steep learning curve and trialling, paving the way for transitioning energy use to more renewable and less fossil fuel use. Beyond the next five years, I believe the world will see an intense focus on decarbonization, both in the environment and within some heavy industries as the world attempt to blunt the impact of climate change. Overall, I am excited about the opportunities that exist for governments, companies, and workers who want to be a part of this work.

As a relatively small sized technology company, how do you adapt to the changing needs of larger clients?

As mentioned earlier, I am always surprised at how adaptable our technology, engineering, and project teams are. On top, these teams are also very much customer focused, and we are always taking client feedback and seeing where ProSep can fit into the larger picture. Adapting to your customer's changing needs, is then basically a function of developing customer relationships, know where we, as ProSep, excel and where we fit in, and then offering those solutions to your client when the opportunity arises. They say luck is just preparedness and opportunity meeting, and I firmly believe that ProSep is a well prepared company, and so it's incumbent upon us to continually speak with customers and seek those opportunities.

Thank you to Greg for sharing his thoughts on the Energy Transition and Energy Security.

Keep up-to-date with the rest of the series and hear more from our experts at www.prosep.com