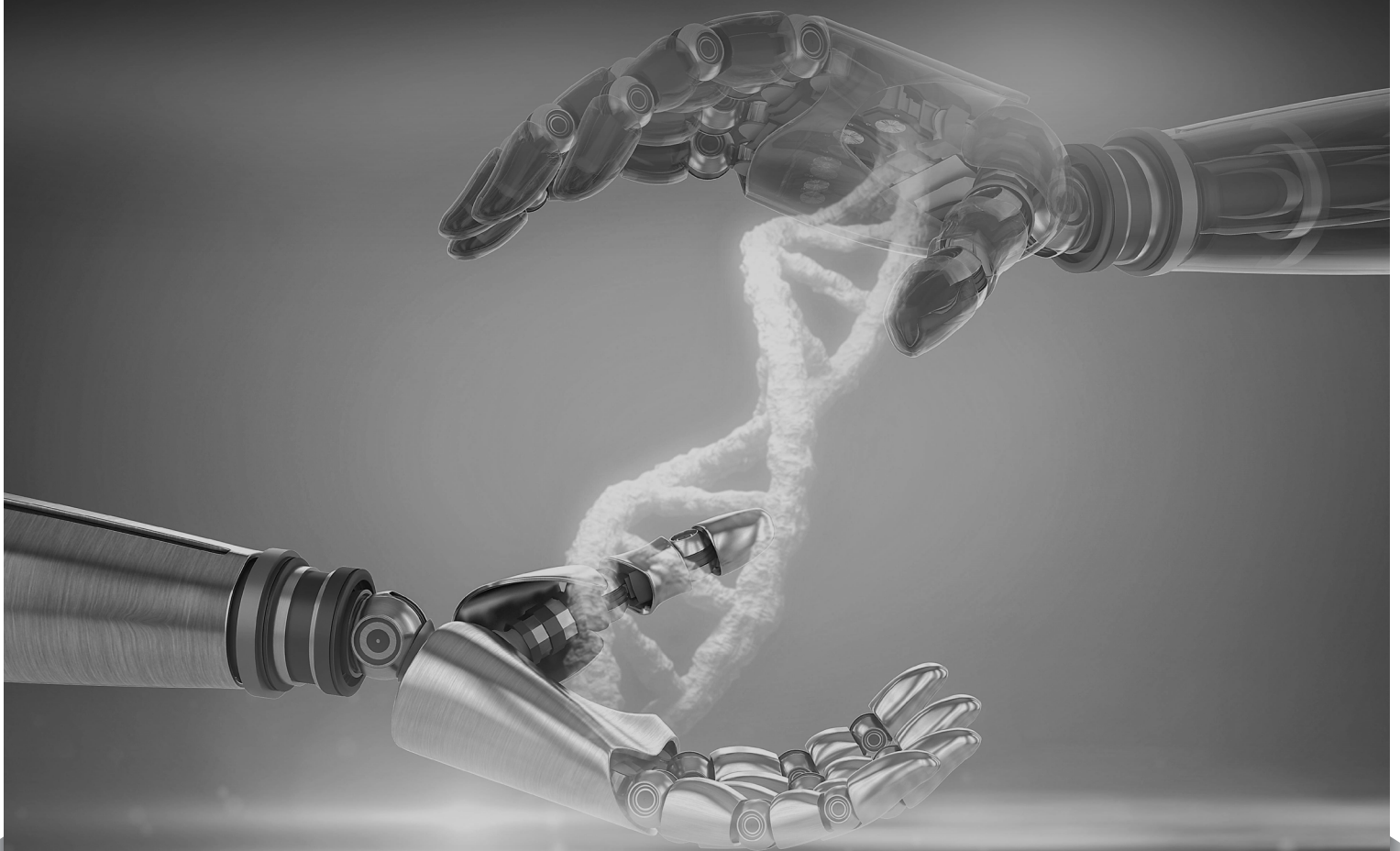




# Emerging Stocks Down Under

🗨️ *Monetary policy works in theory, but not in practice; fiscal policy works in practice, but not in theory.* 🗨️

- Robert Skidelsky (b. 1939), Member of British House of Lords



— **RUBICON WATER**

Let profits flow

— **ALEXIUM  
INTERNATIONAL  
GROUP**

Heating up

— **VECTUS  
BIOSYSTEMS**

Just a little too early

# RUBICON WATER

Let profits flow

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Stocks Down Under rating: ★★★★★

**ASX: RWL**  
**Market cap: A\$286M**

**52-week range: A\$1.43 / A\$2.14**  
**Share price: A\$1.67**

Headquartered in Melbourne, Rubicon Water is attempting to take its 218 patents and stop the rampant waste of water in the world-wide agricultural industry. The systems Rubicon sells allow farmers and all of those who use gravity-fed irrigation networks to drastically increase the control over the flow of water. This may seem like a matter of sustainability for sustainability's sake, but water is becoming ever scarcer and the price is going to rise. This is one of the reasons why Rubicon Water shareholders have been provided with a torrent of earnings growth.

[READ MORE](#)

# ALEXIUM INTERNATIONAL GROUP

Heating up

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Stocks Down Under rating: ★★★★★

**ASX: AJX**  
**Market cap: A\$55.1M**

**52-week range: A\$0.044 / A\$0.105**  
**Share price: A\$0.085**

Headquartered in Greer, South Carolina (USA), the Alexium International Group is a perfect example of how technology and innovation can make all aspects of our lives easier. Despite being founded in 2009, the company is not yet profitable, but revenue has been growing steadily and FY21 saw a massive step in the right direction, profit-wise. As climate change continues to cause extreme weather events and with temperatures rising in certain areas (like Australia), we believe Alexium's thermal regulation and flame-retardant proprietary solutions will see increasing demand going forward.

[READ MORE](#)

# VECTUS BIOSYSTEMS

Just a little too early

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Stocks Down Under rating: ★★★

**ASX: VBS**  
**Market cap: A\$47.2M**

**52-week range: A\$0.88 / A\$2.20**  
**Share price: A\$1.47**

Research and Development (R&D) is the magic term of the 21st century and one that the Rosebery, New South Wales-based Vectus Biosystems has truly taken to heart. The company's plan, for now and the foreseeable future, is to develop drugs and treatments, which it will then license out. The company has a solid patent portfolio and is currently working on achieving clinical approval for its drug VB0004. But the company has a long way to go before it becomes profitable and only approximately one year's worth of money in the bank. So, the question remains, is it worth wading through the inevitable dilution?

[READ MORE](#)

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## Share price chart



Source: Tradingview

## You never know what you have until it's gone

We don't think this phrase can be used better than to describe humankind's relationship with our most vital resources: water. According to the Water Scarcity Clock there are currently over 2.4bn people living in water scarce areas. This represents approximately 30% of the world population and this number will most likely only go up. Over the last 100 years, water use has consistently grown at a rate greater than that of humanity's explosive population growth.

What exactly does 'water scarcity' mean? World Data Lab defines it as either a physical shortage of water (known as physical water scarcity), or a situation where water is in short supply due to institutional failures, such as missing infrastructure (known as economic water scarcity).

Where does Australia stand? So far, 29% of the population is technically in areas of water scarcity and farmers have been feeling it rather acutely. For more information on Australian water scarcity please see our [18 September 2020 report on Duxton Water \(ASX: D20\)](#).

Both India and China have major areas of agricultural activity and both suffer from water scarcity. India, in fact, is one of the largest places in the world by population with over 470m people living in areas of either water scarcity (33% of its 1.4bn population) or absolute scarcity. By 2030, World Data Lab expects 34% of

India's estimated 1.6bn population to live in water scarce areas with a total 530m people living in either water scarcity or absolute scarcity.

With all of India's water troubles, China still takes the cake with 36% of its estimated 1.4bn people living in areas of water scarcity and approximately 497m people living in either water scarce areas or absolute scarcity areas.

## **It's all about the technological edge**

So, how does Rubicon Water fit in? The company sells a variety of software-based water management and planning solutions, mainly to farms. These products not only help farmers reduce the amount of water used by cutting waste and precisely measuring how much is actually needed, but also helps farmers plan ahead by giving them in-depth insights into their current water situation. With additional insight, farmers are able to plan ahead better and when a crisis hits (like a drought), have a better chance of being prepared.

Let's be clear, meeting these demands requires a highly R&D intensive process and this means that not only is Rubicon Water's technology not easily replicated, but its patent protected. This includes the company's internally developed gates, valves and flow meters as well as the company's software that makes the whole system run like clockwork.

Rubicon Water's software can be broken down into three platforms. Confluent is for irrigation districts and allows utilities to easily bill customers, as well as communicate and manage the entire water distribution system. SCADAConnect is a mobile-based monitoring and management software suite. The system is designed mainly for use in the field and allows for complete control and real-time and historical reporting across multiple sites. The system even allows for alarms to be set and automatic schedules to be put in place. Last but not least is FarmConnect. This platform allows farmers to monitor their crops while also providing insights into optimal watering protocols. It gives them complete control over their irrigation system through an all-in-one, easy to use mobile and web-based platform.

## **Let the profits flow**

While FY21 was tough for many companies, water seems to be a pandemic proof industry with Rubicon Water's revenue increasing 25.8% year-over-year to \$81.5m. Granted, the gross profit margin declined 3.1%-points, but we put that more to increased supply chain costs than anything else. And the increase in revenue more than offset these cost increases.

EBITDA increased a whopping 108.4% year-over-year. How exactly did this happen? To understand that, we need to dig a little into Rubicon Water's three divisions: ANZ, Asia and Rest of World (ROW). During FY20, the company's two main divisions were ANZ (\$20.7m in revenue and \$3.5m in EBITDA) and Asia (\$27m in revenue and \$3.4m in EBITDA). While ANZ experienced growth across both revenue and EBITDA in FY21, Asia was the star of the show growing revenue 52.2% (to \$41.1m) and EBITDA 232.7% (\$11.2m) year-over-year.

Rubicon is highly focussed on Asia as this continent is experiencing a sharp increase in water scarcity and all indications are that the situation is only going to get worse. Unfortunately, there is no magic bullet to this problem, but one of the main courses of action by Asian governments (especially China) has been to push for consumption to be dialled back.

So, while we don't have any management earnings guidance, when we factor in Rubicon's technology and the macro conditions in Asia and the ANZ region, we find the trailing 12-month EV/EBITDA multiple of 26.5x to be more than reasonable, especially considering the strong EBITDA growth Rubicon is experiencing. Four stars from us.

# ALEXIUM INTERNATIONAL GROUP

Heating up

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## Share price chart



Source: Tradingview

## Who said technology was just for machines?

Over the last five years, the Alexium International Group has spent US\$4.3m on Research and Development (R&D). What has all of this R&D accomplished? Alexium describes itself as a developer of “Phase-Change Material (PCM) and other specialty textile solutions”. It has developed a series of formulations that allow fabrics to have thermal regulation or flame-retardant properties.

Currently, Alexium has three products; Alexicool PCM, Alexicool FM and Alexiflam NF. Alexicool PCM is a finishing treatment applied to fabrics that allow them to withstand a minimum of 25 cycles of laundry without losing the ability to regulate thermal energy. In other words, it allows the fabric to stay cool. The product is mainly used for bedding products, where staying cool is certainly a priority for consumers.

Alexicool FM is another treatment method, where FM stands for Foam Material. The treatment is designed to be used with foam products, with a focus on foam bedding products, like mattress layers, pillows, etc. Like Alexicool PCM, Alexicool FM helps the product regulate thermal energy, but this product has some optional features as well. These additional additives are flame retardant, antimicrobial and can control odour. Alexicool is able to regulate thermal energy by both absorbing and dispersing heat. The combination is what makes Alexicool so effective.

Alexiflam has two main products, Alexiflam NF-LS and Alexiflam NF. Alexiflam NF-LS stands for Natural Fiber, Low Salt and is made for cotton socks, specifically mattress covers. Alexiflam NF-LS offers 100% fire protection, is durable enough to withstand spills and does not use fibreglass or rayon, common alternatives. The spill resistance is equally important, as many competitive cotton sock treatments are susceptible to washing off.

Alexiflam NF stands for Natural Fibres and is for more general use, mainly with uniforms, fleece and other apparel. The environmentally friendly Alexiflam NF is fibreglass, halogen and formaldehyde-free, based off a phosphorus base instead. By applying the Alexiflam NF solution, the cotton and cellulose-based textiles become flame retardant for at least 50 washes, with the option for moisture wicking, antimicrobial and odour control properties as well. It is important to note that the product is considered military-grade when it comes to uniforms and the company has proven that it can work with different weight, camouflage styles and finishes.

### **A business that won't burn, but might explode**

Alexium might not be profitable yet, but is moving in the right direction. During FY21, Alexium reduced its EBITDA loss by 14.1% to US\$1.8m after revenue increased 19.7% to US\$7.3m. And if 1Q22 is any indication, FY22 is set to put FY21 to shame. In 1Q22, revenue reached US\$2.6m, a 40% year-over-year and 20% sequential increase compared to 4Q21. If this was not impressive enough, management has stated "the upwards sales trend is expected to continue for the next two quarters". Now, a part of this is due to Alexium releasing a new product line, Eclipsys for body armour. However, we believe the continued market penetration of its current products is a large reason behind management's optimism.

On a trailing 12-month basis, Alexium is currently valued at an EV/Revenue multiple of 5.6x. Based on the company's current growth trajectory, we believe this represents good value, especially when you consider this is based on historical earnings, not future earnings. When we combine Alexium's impressive technology with its equally impressive valuation, the only reasonable rating in our book is four stars.

# VECTUS BIOSYSTEMS

Just a little too early

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## Share price chart



Source: Tradingview

## The portfolio that made it all possible

Before we jump into Vectus Biosystems' clinical trials, let's take a look at the patent portfolio that made it all possible. As of 1Q22, this portfolio consists of over 1,000 different compounds. In the United States and Russia, Vectus has been granted patent protections on over 700 unique compounds and each quarter seems to have another bunch of patents granted around the world. The company plans to use this portfolio to develop drugs similar to VB0004. How has Vectus been able to develop such a large patent portfolio? Well, it's all due to the company's wholly-owned subsidiary Accugen.

Accugen has developed a platform that consists of reagents and software (RealCount) that quantitate qPCR reactions. To put it in plain English, it measures the amount of DNA or RNA in a sample. Vectus believes the Accugen system potentially offers a time, cost and accuracy benefit to more easily and precisely quantify PCR compared to currently available methods since the system not only removes the need for housekeeping genes, but is compatible with many of the current instruments and techniques. To be clear, the basic method used was not developed by Accugen, but what the company has done is develop a system that drastically simplifies it and this has allowed the company to grow its patent portfolio so quickly.

## **VB0004 and the hope of profitability**

Currently, VB0004 is the farthest along of Vectus' three drugs in development and has demonstrated anti-hypertensive properties and anti-fibrotic activity in the heart and kidneys. On 7 September 2021, Vectus announced that its Phase 1 human trials were going well and that it had completed 2mg and 10mg dosing with the trial safety committee granting permission to continue to the next dose level. VB4-A32 looks to address liver fibrosis and VB4-A79 is being developed to help treat pulmonary fibrosis from all cases except scleroderma where blood pressure lowering likely required.

However, neither of these have reached the stage of clinical trials. Management is also exploring additional options for potential uses of VB0004, VB4-A79 and VB4-A32. However, there is no guarantee they will find any. Still, with Vectus' massive patent portfolio and the Accugen platform, we would be surprised if management did not begin larger work on additional compounds and drugs in the future.

## **Being early can be as bad as being wrong**

During FY21, Vectus saw its net loss expand to \$4.3m, following a 141% increase in R&D costs to \$1.7m and a 50% increase in finance costs to \$1.1m. During 1Q22 Vectus used \$1.1m cash in operations. Unfortunately, as of 30 September 2021, the current cash level stood at \$4.6m. This means that further dilution is a near-certainty, especially with how far Vectus is from gaining approval for VB0004.

While we are impressed by Vectus' vast IP portfolio, it is clear that the company is far from commercialisation and we expect shareholders will likely have to go through multiple additional capital raises before VB0004 gets through all clinical trials.

So, while we certainly will be putting Vectus on our watch list, we believe there are a number of other early-stage biomedical companies with a market capitalisation of around \$50m that are a lot closer to commercialisation. So, three stars for Vectus Biosystems at this time, but be sure to check back later as the Accugen platform certainly has long-term potential, in our view.





## Pitt Street Research Pty Ltd

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