



## Approaching commercialisation

Achiko AG (SWX: ACHI) is a disruptive Testing as a Service provider with the potential to provide the next diagnostics infrastructure of choice for COVID.

Currently, the company has two products in its portfolio – Teman Sehat and Gumnuts. Teman Sehat is a contact tracing app through which users can manage their COVID-19 testing experience. Gumnuts, on the other hand, is low-cost, saliva-based rapid diagnostic test for detection of bacteria and viruses, including COVID-19.

When combined, the two products effectively grant people with a digital health passport, allowing them to safely travel, work and play in a COVID world.

### Major distribution partners secured

On 12 February 2021, Achiko reported that it has signed up several leading distribution partners for the potential initial rollout of its testing technology in Indonesia. Specifically, the deal involves the set-up of a joint venture company called PT Achiko Medika Indonesia between Achiko and a major Indonesian medical device distributor PT Indonesia Farma Medis, with the goal of manufacturing and assembling Project Gumnuts test kits for Indonesia. We believe this JV deal will help drive a successful rollout of Achiko's products in Indonesia as it will allow the company to leverage on the logistical expertise of PIFM, including their large network of relationships and distribution channels across the main Indonesian islands.

### Completion of Phase 1 study de-risked Achiko

In late January 2021, Achiko reported the completion of Phase 1 testing for its Project Gumnuts COVID testing technology which yielded a result of 91% sensitivity and 85% specificity. Fundamentally, we think the completion of Phase 1 testing and its associated positive results have increased Achiko's probability of success in bringing its new testing technology to commercial viability. This in turn should de-risk the Achiko investment case, in our view.

### Revised valuation range of CHF 0.59 – 0.97 per share

We re-work our probability weighted DCF based on the recent development of Achiko and revise our forecasts accordingly. Our revised DCF generates a valuation range of CHF 0.59 base case and CHF 0.97 bull case, after accounting for an expanded share base. Please see pages 5 and 6 for a detailed discussion on our forecast revisions and key risks associated with Achiko.

Share Price: CHF 0.34

SWX: ACHI

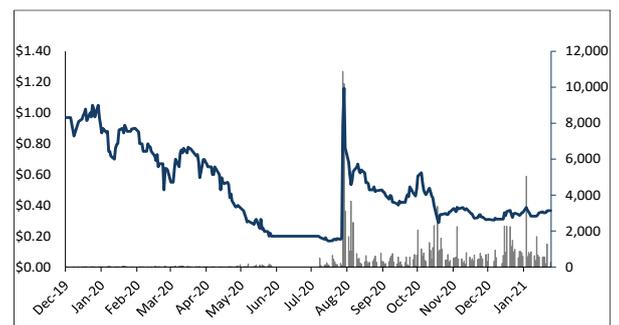
Sector: Technology

23 February 2021

Market Cap. (CHF m)	37.0
# shares outstanding (m)	108.9
# shares fully diluted (m)	128.0
Market Cap Ful. Dil. (CHF m)	43.5
Free Float	68.8%
52-week high/low (CHF)	1.16 / 0.17
Avg. 12M daily volume ('1000)	440.5
Website	<a href="http://www.achiko.com">www.achiko.com</a>

Source: Company, Pitt Street Research

### Share price (CHF) and avg. daily volume (k, r.h.s.)



Source: Refinitiv Eikon, Pitt Street Research

<b>Valuation metrics</b>	
DCF fair valuation range (CHF)	0.59 – 0.97
Discount rate	16%
Assumed terminal growth rate	None

Source: Pitt Street Research

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## Approaching commercialisation

### Distribution partners secured; regulatory approval pending

In an update to the market on 12 February 2021, Achiko reported that it has signed up several leading distribution partners for the potential initial rollout of its Project Gumnuts COVID testing technology program in Indonesia.

Specifically, the deal involves the set-up of a joint venture company called PT Achiko Medika Indonesia (PAMI) between Achiko and a major Indonesian medical device distributor PT Indonesia Farma Medis (PIFM), with the goal to jointly manufacturing and assembling Project Gumnuts test kits for Indonesia.

Subject to receiving the appropriate regulatory approvals, we believe this JV arrangement will lead to a successful rollout of Achiko's testing platform in the Indonesian market because it provides the company with an opportunity to leverage on the logistical expertise of PIFM, including their large network of relationships and distribution channels across the main islands of Indonesia.

Furthermore, part of the PAMI JV also involves Achiko engaging several other leading distributors including PT Mitra Asa Pratama and PT Pharos Indonesia to further assist with the assembly, distribution and marketing of the Project Gumnuts test kits in Indonesia. The ability to secure these leading distribution partners represents a major milestone for the company, which we believe will help drive a speedy rollout of its testing technology into the market as soon as the regulatory approvals are obtained.

### Completion of Phase 1 study de-risked Achiko

In late January 2021, Achiko reported the completion of its Phase 1 testing for its Project Gumnuts COVID testing technology which yielded a result of 91% sensitivity and 85% specificity. The company is currently performing ongoing optimisation studies and expects to continue to improve results and pass the WHO guidelines for sensitivity and specificity.

Fundamentally, we think the completion of Phase 1 testing and its associated positive results have increased Achiko's probability of success in bringing its new testing technology to commercial viability. This in turn should de-risk the Achiko investment case, in our view.

### The upcoming diagnostics infrastructure of choice for COVID

As a background reminder, Achiko's Project Gumnuts test kits once approved will be integrated with its Teman Sehat contact tracing mobile app. When this occurs, a real-time information ecosystem could come into operation, which will alert people to avoid COVID hotspots whilst allowing them to feel safe elsewhere. If implemented successfully, this could potentially lead to a virtual re-opening of economies even if another COVID outbreak arises.

We see the combination of Gumnuts and Teman Sehat as effectively granting people with a digital health passport, which enables them to safely travel, work and play in a COVID world. Furthermore, the low cost, mass screening and passporting features of the technology allow us to see the potential for it being brought into key industry verticals such as hospitality and cruise tourism and thus becoming the diagnostics infrastructure of choice for COVID.

*Securing major distribution partners will allow Achiko to leverage on their logistical expertise, which in turn should help drive a speedy rollout of its testing technology*

*The low cost, mass screening and passporting features of the technology could potentially be adopted in key industry verticals such as hospitality and cruise tourism*



### Achiko to offer a possible solution for mass COVID testing

One possible way to control the virus spread and avoid a nation-wide lockdown is through mass testing of an entire population. This simple, yet difficult to be implemented strategy involves testing everyone in a country and immediately isolating the infected ones. And by conducting testing on such a large scale, we could work out the mystery COVID cases and thereby avoid a national or regional lockdown. The ideal outcome that entails from mass testing is a return to normalcy so that everyone can work, travel and play in a COVID safe way.

*Achiko's Gumnuts diagnostic test could come in at ~US\$1.50 per test, possibly making it a viable option to do mass screening of entire populations*

Despite the upsides from large scale screening, not a lot of countries have done it thus far. Mass testing is complex and labour intensive. In addition, we argue that the current COVID testing technologies have shortcomings that make them unfeasible for mass scale testing. On the cost side of the equation for instance, PCR generally costs more than US\$50 per test<sup>1</sup>, and given an average monthly earnings of US\$170<sup>2</sup>, we don't think it is financially viable for people to conduct the test. On the other hand, rapid antigen tests may address the cost and speed issues related to PCR tests, but their relatively poorer performance might impose new challenges.

More recently, the Indonesian government granted a distribution permit for a new COVID detection device known as GeNose C-19<sup>3</sup> that performs a simple breathalyser test to electronically smell the virus in less than two minutes. The goal is to roll out the device so that faster and mass screenings can occur in the country to suppress the virus spread. Importantly, the test can be conducted at a low price point of c.US\$1.07<sup>4</sup>. However, it is worth noting that the device would require a large upfront cost of c.US\$4K<sup>5</sup>, which we think is too expensive for an average Indonesian household to afford.

*We see Achiko's two-pillar technology as an economic moat that makes competitors difficult to imitate*

What distinguishes Achiko from the current testing modalities is its two pillar technology, which once approved, could potentially bring mass testing into reality, in our view. The company believes that their DNA aptamer-based tests can come in at a price point as low as US\$1.50 per test, making it possible to scale almost indefinitely. Moreover, its speed is comparable to conventional lateral flow diagnostic, with results to be obtained in minutes. Therefore, we argue that Achiko has developed the testing technology and platform that are essential and viable for mass testing purposes. If approved and well executed, we believe they should result in better containment of COVID and a return to normalcy.

### Going global is Achiko's real ambition

Beyond Indonesia, Achiko is also eyeing many other markets where it can roll out its products into. The company's recent additions to its senior leadership team including biotechnology research scientist Dr Morris Berrie and business leader in life science Richard Lingard reflect its commitment to develop into a global leading player in diagnostics. We expect these newly appointed leaders will leverage on their significant combined global networks and expertise to help drive the production and commercialisation of Achiko's products in the global markets. If executed successfully, we believe the upside potential for the company can be significant.

*Global rollouts can unlock significant upsides...*

<sup>1</sup> <http://www.oecd.org/coronavirus/policy-responses/testing-for-covid-19-how-to-best-use-the-various-tests-c76df201/>

<sup>2</sup> <https://www.ceicdata.com/en/indicator/indonesia/monthly-earnings>

<sup>3</sup> <https://www.abc.net.au/news/2021-01-02/indonesia-to-use-breathalysers-to-help-detect-covid-19/13019744>

<sup>4</sup> [https://en.wikipedia.org/wiki/Coronavirus\\_breathalyzer](https://en.wikipedia.org/wiki/Coronavirus_breathalyzer)

<sup>5</sup> <https://voi.id/en/berita/27168/alat-tes-covid-19-buatan-indonesia-genose-dijual-rp62-juta-per-unit>



## Revisions to valuation range

Based on recent development discussed above, we make the follow revisions to our forecasts and re-work our DCF:

- We revise our revenue model to incorporate Achiko's new JV for its initial products rollout in the Indonesian market. As the JV is split 50:50 between Achiko and PIFM, we assume Achiko will earn a 10% licensing fee based off its own proportional interest of the JV's future gross sales. In addition, we now think that it appears more likely for Achiko to engage in licensing arrangements when and if it comes to rolling out its products into markets beyond Indonesia. Thus, we re-model Achiko out-licensing its products to a large pharmaceutical company in each of our target markets and in turn earning a 10% royalty on future sales.
- We revise our commercialisation timeline for the Indonesian market to be in line with the company's latest guidance of 2Q21. Furthermore, we slightly push back our estimated commercialisation timelines for some of our other target markets due to the delay in the company's expected products rollout in its initial Indonesia market.
- We think Achiko's completion of the Phase 1 study along with its positive test results have increased its probability of success in bringing its new testing technology to commercial viability. Accordingly, we adjust our probability and risk factors to reflect some de-risking in product development.

On a per share basis, our revised valuation range is CHF 0.59 – CHF 0.97 after factoring in an increased share base of 108.9M. Our revised DCF valuation summary is shown in Figure 1.

Figure 1: Revised DCF valuation summary

Gumnuts & Teman Sehat Valuation	Base Case	Bull Case
NPV (US\$M)	120	183
Risk Factor	60%	65%
rNPV (US\$M)	72	119
CHF/USD	0.89	0.89
<b>rNPV (CHF M)</b>	<b>64</b>	<b>106</b>
Shares outstanding (M)	108.9	108.9
<b>Implied Price (CHF)</b>	<b>0.59</b>	<b>0.97</b>
Current Price (CHF)	0.34	0.34
Upside (%)	72%	186%

Source: Pitt Street Research



## Key risks

**Risks specific to Achiko.** We see five major risks for Achiko as a company and as an investment:

- **Timing risk.** There is the risk that Achiko may take longer to develop and commercialise its products than the time we have postulated in this note.
- **Regulatory risk.** There is the risk that regulators may decline to approve those products even if Achiko consider the data submitted to be adequate.
- **Funding risk.** Achiko is publicly traded on the SIX Swiss Stock Exchange but may still find capital raising hard in the event it does not execute as well as investors had hoped in previous rounds.
- **Commercial risk.** There is the risk that Achiko's products may fail to be taken up by clinicians due to lack of reimbursement or other clinical concerns.

### **Risks related to pre-revenue Life Science companies in general.**

- The stocks of biotechnology and medical device companies without revenue streams from product sales or ongoing service revenue should always be regarded as speculative in character.
- The fact that the intellectual property base of most biotechnology and medical device lies in science not generally regarded as accessible to the layman adds further to the riskiness with which the sector ought to be regarded.

**Caveat emptor.** Investors are advised to be cognisant of the abovementioned specific and general risks before buying any the stock of any biotechnology and medical device stock mentioned on this report, including Achiko.

Please see <https://www.pittstreetresearch.com/> for our initiating coverage report on Achiko.



## Analyst Qualifications

Cheng Ge, lead analyst on this report, is an equities research analyst at Pitt Street Research.

- Cheng obtained a B.Com in Finance and LL.B from University of New South Wales, in 2013, and has passed all three levels of the CFA Program.
- Before joining Pitt Street Research, he has worked for several financial services firms in Sydney, where his focus was on financial advice.
- He joined Pitt Street Research in January 2020.

Stuart Roberts has been an equities analyst since 2002.

- Stuart obtained a Master of Applied Finance and Investment from the Securities Institute of Australia in 2002. Previously, from the Securities Institute of Australia, he obtained a Certificate of Financial Markets (1994) and a Graduate Diploma in Finance and Investment (1999).
- Stuart joined Southern Cross Equities as an equities analyst in April 2001. From February 2002 to July 2013, his research speciality at Southern Cross Equities and its acquirer, Bell Potter Securities, was Healthcare and Biotechnology. During this time, he covered a variety of established healthcare companies, such as CSL, Cochlear and Resmed, as well as numerous emerging companies. Stuart was a Healthcare and Biotechnology analyst at Baillieu Holst from October 2013 to January 2015.
- After 15 months over 2015–2016 doing Investor Relations for two ASX-listed cancer drug developers, Stuart founded NDF Research in May 2016 to provide issuer-sponsored equity research on ASX-listed Life Sciences companies.
- In July 2016, with Marc Kennis, Stuart co-founded Pitt Street Research Pty Ltd, which provides issuer-sponsored research on ASX-listed companies across the entire market, including Life Sciences companies.
- Since 2018, Stuart has led Pitt Street Research's Resources Sector franchise, spearheading research on both mining and energy companies.

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