

## Simulations Plus

SLP: NasdaqGS

**Analyst:** Peter Ostrowski  
**Sector:** Information  
Technology

**BUY**

Price Target: \$11.05

### Key Statistics as of 10/21/2015

Market Price: \$9.30  
Industry: Software  
Market Cap: \$159 Million  
52-Week Range: \$5.52-10.27  
Beta: .47

### Thesis Points:

- Acquisition of Cognigen
- Long Term Growth Opportunities
- Financials

### Company Description:

Simulations Plus, Inc. develops and produces software for use in pharmaceutical research and for education, and provides consulting and contract research services to the pharmaceutical industry. It engages in the drug discovery and development simulation and modeling software, which is licensed to and used in the conduct of drug research by pharmaceutical, biotechnology, agrochemical, and food industry companies worldwide. The company also provides personal productivity software program called Abbreviate. Simulations Plus was founded by Walter S. Woltosz & Virginia E. Woltosz on July 17, 1996 and is headquartered Lancaster, CA.



## Thesis

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SLP is a leader in the development of simulation software; primarily in the healthcare industry. Since SLP had their inception in 1996 they have been able to formulate successful projects that have fortified their success in the software market. With the recent acquisition of Cognigen, SLP has been able to increase revenue and income. SLP's expanding portfolio of future and continued projects along with consistent profitability and liquidity, will lead to further growth of the company.

## Acquisition of Cognigen

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In 2014 Simulations Plus acquired Cognigen Corporation as a wholly owned subsidiary. Cognigen is a leading provider of population modeling and simulation contract research services for the pharmaceutical and biotechnology industries. The acquisition of Cognigen came with 48 active projects and increased the number of SLP scientists from 30 to 65. These projects offer simulations on clinical development. Before this acquisition; SLP mainly operated on preclinical development simulations. The addition of Cognigen scientists will allow SLP to enhance their ability to see things in different perspectives and propose new ideas to clients. The acquisition was done through \$2.4 million in cash and \$4.6 million in newly offered shares. This purchase has already proven to be profitable. Revenues increased in the third quarter by \$2.2 Million or 58.9% as compared to the 3<sup>rd</sup> quarter of 2014. Cognigen accounted for \$1.4 million of this increase in revenue. Net income and EBITA also increased as a result of this. Net income increased 41.7% or \$545,000 to 1.85 million from 1.3 million in 2014. 47% of this increase was from Cognigen. Before this acquisition SLP mainly operated on preclinical development simulations.

Cognigen's product KIWI is an innovative new outlook on cloud computing. "KIWI was created as a cloud-based, validated platform to efficiently and consistently organize, process, and communicate pharmacometric results and the story in front of the pharmacometric analyses." KIWI is releasing a beta for their update in November with the actual release

taking place in January. SLP has a software renewal rate of 99%. This is expected to immediately generate revenue.

## Long Term Growth Opportunities

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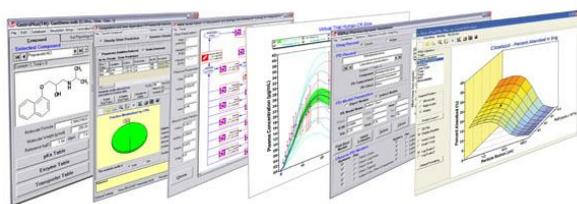
SLP is primarily in the pharmaceutical market. This is highly important as pharmaceutical research and development spending is expected to have a 16% annual growth over the next four years. All top 20 pharmaceutical companies in the world hold product licenses in SLP. This is an immediate indicator of a high probability of increased sales during the next four years for SLP. It currently costs on average \$350-900 million to bring a new drug to the market. As SLP already has licenses with the United States FDA, the Japanese FDA and the Chinese FDA; it is highly effective for companies to use SLP's simulation software as there is increasing pressure to reduce the use of animals in pharmaceutical research.

SLP was recently awarded \$200,000 from the FDA office of generic drugs to develop improved modeling and simulation capabilities for dosage forms that are designed to be administered to the eye. This is a three year project that is only 3 quarters through. The importance of this is due to the significant growth in diseases of the eye. In 2012 the ophthalmic drug market was valued at \$16 billion and is expected to grow to \$21 billion in 2018. It is also expected that as companies develop drugs, the enhanced capabilities of SLP's program will help for both the development strategies of the drug and also the regulatory review of subsequent submissions that go into regulatory agencies.

SLP's flagship program GastroPlus™ has been a success since its inception. This is mainly due to its innovative ideology. "GastroPlus is a mechanistically based, PBPK modeling & simulation software package that simulates intravenous, oral, oral cavity, ocular, inhalation, and dermal/subcutaneous absorption, pharmacokinetics, and pharmacodynamics in human and animals." Gastroplus is able to show how quickly a drug will metabolize, understand appropriate dosage levels and understand food effects. This is the future of simulation technology as SLP continues to add to it with expansions and modules. Below one can see an

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example of the layout of the technology.



Two projects that are in the process of gathering funds and potential clients include Aeromodeller and MRImodeller. Aeromodeller is a different kind of project for SLP as it deals with simulating planes and missiles. It has the ability to predict aerodynamic force coefficients for missiles and can identify issues with planes before takeoff. SLP has used this product with NASA and the Airforce and was able to identify key issues in both. Aeromodeller is currently being shown in conferences across the globe as it is still very young. MRImodeller is another simulation project; it helps technicians to quickly run through MRI data to determine if a person is healthy or unhealthy. This project is currently waiting on funds to complete and begin marketing.

## Financials

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Simulations Plus maintains a strong cash position at \$7.7 million. This has allowed SLP to have the ability to give out dividends every quarter since 2012. The strong cash positions main importance is that it allows SLP to renegotiate agreements and also take on new projects or acquisitions. SLP has a very high current ratio at 6.9. This is important because it shows that SLP has an adequate amount of working capital every quarter to avoid any possible threat of missed payments or even bankruptcy. The risk of bankruptcy is even lower due to the fact the SLP has a non-debt balance sheet and consistently has positive cash flows.

## Porter's Five Forces

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The Porter's five forces show that the bargaining power of suppliers is low. This is because SLP is a software company and needs a very small amount of supplies as most of the supplies are human capital which are found within the company.

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The bargaining power of customers is neutral as there is not an overwhelming customer base; however, SLP has a 99% software renewal rate. SLP also has a few products such as ADMET predictor which is the industry's number one ranked QSAR modeling software and DDDPlus which is the industry's only in vitro dissolution software.

The intensity of existing rivalry is high as stated in the 10-k, "we operate in the computer software industry, which is highly competitive and changes rapidly."

The threat of substitutes is low as there are a limited amount of substitute products for the healthcare simulation field. To switch products is expensive as the investing company would have to completely change their software. Also any substitutes if any would be of lower quality as SLP is the leading developer of most of their products.

The threat of new competitors is low. This is due to the issue with the advanced technology required. It is also essential to have extremely experienced scientists in the field of healthcare simulations. Patents also heavily limit new competitors and customers appear to be loyal to SLP.

## Conclusion

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I recommend a buy for Simulations Plus due to their generation of new revenue from Cognigen. This acquisition will lead to further growth and continued positive cash flows. The diversity of new and current projects also gives SLP stability in the event of a crisis and the ability to take off in the event of successful projects including Aeromodeller and MRImodeller. Lastly, it is important to focus on the financials as they show further stability because of their high current ratio.

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Simulations Plus, Inc. <span style="float: right;">slp</span>		Analyst Peter Ostrowski	Current Price \$9.18	Intrinsic Value \$10.82	Target Value \$11.05	Divident Yield 2%	1-y Return: 22.78%	NEUTRAL	
General Info		Peers	Market Cap.	Management					
Sector	Healthcare	Sebring Software, Inc.	\$1.03	Professional		Title		Comp. FY2012	
Industry	Health Care Technology	MeVis Medical Solutions AG	\$41.71	Woltosz, Walter		Co-Founder, Chairman and Chief Executive		Comp. FY2013	
Last Guidance	(Invalid Identifier)	Medical Transcription Billing, Corp.	\$16.85	Woltosz, Virginia		Co-Founder, Treasurer and Secretary		Comp. FY2014	
Next earnings date	November 25, 2015	DATATRAK International, Inc.	\$7.80	Kneissel, John		Chief Financial Officer		\$479,264	
Market Data		Streamline Health Solutions, Inc.	\$38.75	DiBella, John		Vice President of Marketing and Sales		\$60,000	
Enterprise value	\$148.64	Ifa Systems Ag	\$32.04	Garsela, Thaddeus		President and Director		\$0	
Market Capitalization	\$155.07	Medasys SA	\$15.46	Bolger, Michael		Chief Scientist		\$197,028	
Daily volume	0.04	Nightingale Informatics Corporation	\$4.74	Medtech Global Limited		Chief Scientist		\$211,647	
Shares outstanding	16.89	Cost of Borrowing (LTM)	0.00%	Past Earning Surprises		Revenue		EBITDA	
Diluted shares outstanding	16.94	Estimated Cost of new Borrowing	0.00%	Last Quarter		6.83%		Norm. EPS	
% shares held by institutions	19.43%	Altman's Z	9.89	Last Quarter-1		-0.65%		Standard Error of "Surprise"	
% shares held by insiders	39.77%	Estimated Debt Rating	AAA	Last Quarter-2		3.28%		2.28%	
Short interest	0.45%	Current levered Beta	0.50	Last Quarter-3		10.50%		0.22%	
Days to cover short interest	1.08	LTM WACC	4.92%	Last Quarter-4		6.86%		1.09%	
52 week high	\$10.27	Proforma Assumptions		Standard error		1.9%		0.00%	
52-week low	\$5.52	Convergence Assumptions		Standard Error of Revenues prediction		0.0%		10.0%	
5y Beta	0.25	General Assumptions		Imputed Standard Error of Op. Cost prediction		1.9%		3.57%	
6-month volatility	40.14%	Items' Forecast Assumptions		Imputed Standard Error of Op. Cost prediction		10.0%		2.29%	
Convergence Assumptions		Other Assumptions		Base year (LTM)		Convergence period (Industry)		Adjustment per year	
All base year ratios linearly converge towards the industry ratios over an explicit period of 10 years		Money market rate (as of today)	0.35%	Operating Cash./Rev.		0.00%		3.03%	
		Risk-Free rate (long term estimate)	2.92%	NWV./Rev.		22.16%		-1.3%	
		Annual increase (decrease) in interest rates	0.1%	NPPE./Rev.		2.53%		0.9%	
		Marginal Tax Rate	34.0%	Dpr./NPPE		42.81%		-0.6%	
		Country Risk Premium	5.5%	NOPAT MARGIN		32.29%		-1.7%	
Forecast Year		Revenue Growth Forecast		Revenue (\$) Forecast		Op. Exp./Rev.		68.00%	
LTM		12.8%		\$16.60		SBC./Rev.		1.63%	
FY2015		11.8%		\$18.97		Rent Exp./Rev.		1.78%	
FY2016		10.9%		\$21.44		R&D./Rev.		8.12%	
FY2017		9.9%		\$26.75		E&D./Rev.		0.00%	
FY2018		8.9%		\$29.55		SG&A./Rev.		35.86%	
FY2019		7.9%		\$32.42		ROIC		41%	
FY2020		6.9%		\$35.36		EV./Rev.		5.62x	
FY2021		5.9%		\$38.33		EV/EBITA		12.71x	
FY2022		5.0%		\$41.34		Debt/Equity		23%	
FY2023		4.0%		\$44.38		Unlevered beta		0.43	
FY2024		3.0%		\$47.35		Cost of Borrowing		0%	
Continuing Period		3.0%		\$47.35		Dividends/REV		20%	
Forecast Year		ROIC		WACC		Invested Capital		Implied Enterprise Value	
LTM		41.4%		4.9%		\$12.62		\$192.81	
FY2015		48.3%		4.9%		\$12.82		\$196.42	
FY2016		53.0%		5.0%		\$15.65		\$202.35	
FY2017		47.4%		5.1%		\$19.04		\$208.72	
FY2018		42.3%		5.2%		\$23.01		\$215.58	
FY2019		37.7%		5.4%		\$27.59		\$223.04	
FY2020		33.6%		5.5%		\$32.82		\$231.18	
FY2021		30.1%		5.6%		\$38.74		\$240.13	
FY2022		27.0%		5.7%		\$45.40		\$250.02	
FY2023		24.2%		5.8%		\$52.84		\$260.98	
FY2024		21.8%		5.9%		\$61.10		\$273.18	
Continuing Period		27.9%		5.8%		\$25.63		\$10.62	
Forecast Year		Shares Outstanding		Price per Share		Net Claims on Assets and Dilution Costs		Monte Carlo Simulation Results	
LTM		16.89		\$10.89		\$10.65		\$10.89	
FY2015		16.89		\$11.10		\$11.22		\$11.10	
FY2016		16.89		\$11.37		\$11.85		\$11.37	
FY2017		16.89		\$11.66		\$12.52		\$11.66	
FY2018		16.89		\$12.10		\$8.59		\$12.10	
FY2019		16.89		\$12.42		\$9.23		\$12.42	
FY2020		16.89		\$12.78		\$9.66		\$12.78	
FY2021		16.89		\$13.16		\$10.31		\$13.16	
FY2022		16.89		\$13.59		\$10.94		\$13.59	
FY2023		16.89		\$14.12		\$9.58		\$14.12	
FY2024		16.89		\$14.67		\$10.62		\$14.67	
Continuing Period		16.89		\$14.67		\$10.62		\$14.67	
		Sensitivity Analysis		Revenue growth variations account for 95.9% of total variance		Risk premium's variations account for 2.5% of total variance		Operating expenses' variations account for 1.4% of total variance	
		Sensitivity Analysis		Continuing period growth variations account for 0.2% of total variance		Continuing period growth variations account for 0.2% of total variance		Continuing period growth variations account for 0.2% of total variance	

The 3σ(e)-adjusted intrinsic value is \$10.82; the 3σ(e)-adjusted target price is \$11.05; and the analysts' median target price is \$9.15