# ALANTRA Italian Equity Research

## SolidWorld Group

Sector: Technology

## Why just print if you can 3D print?

SolidWorld is a leading Italian enabler of additive manufacturing solutions capable of tailoring bestof-breed third-party solutions to clients' needs thanks to proprietary applications (Integr@). The recently developed, proprietary, game-changing bioprinter should allow the group to become an established player in the biomedical niche. In addition, SolidWorld is beginning to act as a contractor for the development of fully integrated and automated industry 5.0 next-gen smart-factories. We expect net revenues to experience a 14.1% CAGR in the period FY22-FY25E, with a consequent margin expansion bringing EBITDA margin from 6.7% to 11.9%. M&A could be an additional accelerator to the business growth. We initiate with a BUY rating with Eu7.2/share target price (Eu9.2 non-diluted).

- The leading Italian enabler of Additive Manufacturing. With >20 years of experience in the additive manufacturing field, a diversified portfolio (8,000+ customers, generating Eu61mn net sales in FY22) of top clients (e.g. Ferrari, Lamborghini, Leonardo, Ariston,...) and multiple collaborations with high-standing Italian Universities, SolidWorld is a one-of-a-kind 3D system integrator. The group distributes best-of-breed, third-party 3D scanning and printing hardware (32% of FY22 net sales), as well as 3D Software integrated with proprietary applications (65%, of which almost 50% recurring). The additive manufacturing division generates the remaining 3% of sales. SolidWorld has also recently started the production of a game-changing, proprietary, 3D bioprinter capable of reproducing human tissues, and has begun to develop strong capabilities for the creation of next-gen smart factories (transition to industry 5.0).
- A double-digit growth market driven by strong underlying trends. The 3D printing industry is a
  structural growing market driven by several factors: 1) Industry 5.0 and automation; 2) Production
  process in-shoring; 3) Mass customization; 4) Increasing adoption in specific fields (Biomedical).
  According to Hubs, the global 3D market is valued c. USD15bn and is expected to grow by 24% CAGR
  22-26E, reaching over USD44bn value by 2026. The increasing use of advance 3DP technologies
  accelerate the path towards industry 5.0 thanks to reduced lead times and production automation.
- A unicum in the Italian market. Contrarily to its competitors, the group can provide complete additive
  manufacturing solutions, supporting the client both on the hardware and the software side, with
  proprietary solutions and internal capabilities that can tailor the project to the specific needs of the
  client. SolidWorld is not a simple distributor but a true partner and advisor to the client for additive
  manufacturing projects. Overall, there are two kinds of potential competitors in our view: 1) Local
  system integrators specialized in 3D printing (Nuovamacut, Prisma Tech, etc.); 2) International IT
  (generalist) system integrators (Reply Hermes, NTT Data, etc.) with a track record in the field and an
  established network with key technology providers.
- **Proprietary bioprinter, industry 5.0 and UAE.** We expect the group to become an established player in the biomedical niche, leveraging on the recently developed "ElectroSpider" as well as its established knowledge in the field. Furthermore, SolidWorld has recently launched the platform "SolidFactory" to provide manufacturing clients with consulting services for the creation of next-gen smart factories, acting as a contractor. Both bioprinting technologies and industry 5.0 should be, in turn, instrumental to the international expansion, focusing on UAE countries (specifically Dubai). M&A could be an additional accelerator to the business growth.
- Double-digit growth of top line and margin expansion. We expect net sales to experience a 14.1% CAGR from 2022 to 2025, resulting from an 11.4% CAGR 22-25E in the system integration / AM business and an increase from zero to Eu10mn in the bioprinting one. We expect Adj. EBITDA margin moving up from 6.7% in 2022 to 11.9% in 2025, reaching Eu10.6mn, as a result of both operational leverage and the sale of the proprietary bioprinter, which demands a much higher Adj. EBITDA margin, around 30%. This growth and margin expansion should allow the business to generate positive FCF from 2024, in turn diminishing the NFP from Eu12.3mn at YE22 to Eu9.9mn in YE25.
- BUY rating with fully diluted TP of Eu7.2/share (Eu9.2 non-diluted). Listed in July 2022, SolidWorld's stock price is up 140%, compared to +17% of the FTSE Italian Mid Cap index in the same period. We set a TP of Eu7.2/share on a fully diluted basis (47% potential upside), based on a weighted average of 2025 EV/EBIT of proprietary AM technology peers (40%), 2025 EV/EBITDA of System Integrator peers (20%) and a 10Y DCF (40%). This corresponds to a non-diluted valuation of Eu9.2/share.

## BUY

New Coverage

# TP 7.2

New Coverage

Target price upside 47%

Change in EDC act		FY23E	FY24E
Change in EPS est		nm	nm
Ticker (BBG, Reut)	S3D IM		S3D.MI
Share price Ord. (Eu)			4.9
N. of Ord. shares (mn			14.9
Total N. of shares (mr	ו)		14.9
Market cap (Eu mn)			73
Total Market Cap (EU	mn)		73
Free Float Ord. (%)			30%
Free Float Ord. (Eu mi	n)		22
Daily AVG liquidity Or	d. (Eu k)		246
	11	1 3M	12M
Absolute Perf.	-4.1%	<sup>6</sup> 4.0%	5 na
Rel.to FTSEMidCap	-5.5%	6 0.5%	5 na
52 weeks range		1.9	7.1



	FY22A	FY23E	FY24E
Sales	61	69	79
EBITDA adj.	4.1	5.6	8.3
Net profit adj.	0.1	1.7	3.5
EPS adj.	0.010	0.148	0.297
DPS - Ord.	0.000	0.000	0.000
EV/EBITDA adj.	10.2x	13.4x	9.1x
P/E adj.	219.6x	33.0x	16.4x
Dividend yield	0.0%	0.0%	0.0%
FCF yield	-26.4%	-4.8%	2.1%
Net debt/(Net cash)	12.3	15.0	13.8
Net debt/EBITDA	3.0x	2.7x	1.7x

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IMPORTANT. Please refer to the last page of this report for "Important disclosures" and analyst(s) certifications.

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## ALANTRA Italian Equity Research Summary Financials

P&L account (Eu mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Total Revenues	58.2	60.8	68.7	78.6	88.9
First margin	nm	nm	nm	nm	nm
EBITDA reported	3.8	4.0	5.6	8.3	10.6
D&A	(2.6)	(2.6)	(2.8)	(3.2)	(3.7)
EBIT reported	1.2	1.4	2.8	5.0	6.9
Net financial charges	(0.6)	(0.8)	(0.6)	(0.7)	(0.7)
Associates	0.0	0.0	0.0	0.0	0.0
Extraordinary items	0.0	0.0	0.0	0.0	0.0
Pre-tax profit	0.6	0.6	2.2	4.3	6.2
Taxes	(0.8)	(0.5)	(0.4)	(0.9)	(1.2)
Minorities	(0.2)	(0.0)	(0.0)	(0.0)	(0.0)
Discontinued activities	0.0	0.0	0.0	0.0	0.0
Net profit reported	(0.3)	0.1	1.7	3.5	5.0
EBITDA adjusted	4.1	4.1	5.6	8.3	10.6
EBIT adjusted	1.4	1.5	2.8	5.0	6.9
Net profit adjusted	(0.4)	0.1	1.7	3.5	5.0
Margins (%)	FY21A	FY22A	FY23E	FY24E	FY25E
First margin	nm	nm	nm	nm	nm
EBITDA margin	6.6%	6.6%	8.2%	10.5%	11.9%
EBITDA margin (adj)	7.0%	6.7%	8.2%	10.5%	11.9%
EBIT margin	2.0%	2.3%	4.1%	6.4%	7.8%
EBIT margin (adj)	2.5%	2.4%	4.1%	6.4%	7.8%
Net profit margin	-0.6%	0.2%	2.5%	4.4%	5.6%
Net profit margin (adj)	-0.7%	0.2%	2.5%	4.4%	5.6%
Growth rates (%)	FY21A	FY22A	FY23E	FY24E	FY25E
Sales	16.4%	4.4%	13.1%	14.4%	13.1%
EBIIDA	76.9%	5.2%	40.5%	46.2%	28.2%
EBIIDA adjusted	59.2%	0.2%	37.9%	46.2%	28.2%
EBIT	254.1%	18.8%	100.8%	78.3%	37.9%
EBIT adjusted	95.0%	2.3%	90.3%	/8.3%	37.9%
Pre-tax	nm	-7.8%	275.7%	100.5%	43.8%
Net profit	nm	nm	nm	101.0%	43.9%
Net profit adjusted	nm	nm	nm	101.0%	43.9%
	51/044	51/004	51/0.05	510 45	
Per share data	FY21A	FY22A	FY23E	FY24E	FY25E
Shares	11.657	11.657	11.657	11.65/	11.657
N. OT Shares AVG	5.829	11.65/	11.65/	11.65/	11.65/
N. OF Shares diluted AVG	9.0/1	14.900	14.900	14.900	14.900
EPS	(0.059)	0.009	0.148	0.297	0.428
EPS adjusted	(0.070)	0.010	0.148	0.297	0.428
DPS - Ord.		0.000	0.000	0.000	0.000
DF2 - SaV.		0.000	0.000	0.000	0.000
BVPS		0.724	0.872	1.169	1.597

Enterprise value (Eu mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Share price Ord. (Eu)	na	2.3	4.9	4.9	4.9
Market cap		26.3	56.9	56.9	56.9
Net debt/(Net cash)	15.3	12.3	15.0	13.8	9.9
Adjustments	(2.5)	3.4	3.9	4.6	5.3
Enterprise value		41.9	75.8	75.2	72.0
Source: SolidWorld Alantra estima	ites from 202	3			

ource: SolidWorld, Alantra estimates from 2023.

#### Strengths

Leading Italian system integrator of best-of-breed both 3D hardware & software Internal software capabilities to tailor solutions to the specific needs of the client Proprietary, game-changing bioprinting machine

#### Opportunities

Increase the group's presence in the biomedical field with the new Electrospider Effective delivery and scale of the smart-factory development business M&A to accelerate the vertical integration

### Key shareholders

Roberto Rizzo (36.6%) Marco Calini (20.1%) Red Fish (9.2%) Free Float (21.3%)

FY21A Cash flow (Eu mn) FY22A FY23E FY24E FY25E EBITDA reported 38 4.0 56 8.3 10.6 (0.9)(0.6)Net financial charges (0.4)(0.7)(0.7)(0.5) Cash taxes 0.5 (0.4)(0.9)(1.2)Ch. in Working Capital 3.6 (4.6) (3.4)(2.8)(1.7)(0.1)0.1 0.2 0.3 0.2 Other Op. items Operating cash flow (1.9) 4.2 7.2 7.5 1.4 (3.1)(4.1)(2.9) Capex (5.1)(3.3)FCF 4.3 (6.9) (2.7) 1.2 3.9 0.0 0.1 0.0 0.0 0.0 Disposals/Acquisitions 0.0 6.1 0.0 0.0 0.0 Changes in Equity (6.0) 0.0 0.0 0.0 3.8 Others Dividends (0.1)0.0 0.0 0.0 0.0 Ch. in NFP 3.9 (1.7)3.1 (2.7)1.2 FY24E Ratios (%) FY21A FY22A FY23E FY25E Capex/Sales 5.4% 8.4% 6.0% 3.8% 3.8% Capex/D&A 1.2x 1.9x 1.5x 0.9x 0.9x FCF/EBITDA 113.7% -172.7% -48.4% 14.8% 36.9% FCF/Net profit 35.3% 78.3% nm nm nm

Balance sheet (Eu mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Working capital	2.5	2.9	6.3	9.1	10.7
Fixed assets	18.5	21.9	23.6	23.7	23.8
Provisions & others	(3.7)	(4.0)	(4.5)	(5.1)	(5.8)
Net capital employed	17.3	20.9	25.4	27.6	28.7
Net debt/(Net cash)	15.3	12.3	15.0	13.8	9.9
Equity	0.7	8.4	10.2	13.6	18.6
Minority interests	1.3	0.2	0.2	0.2	0.2

-12.8%

Dividend pay-out

0.0%

0.0%

0.0%

0.0%

Ratios (%)	FY21A	FY22A	FY23E	FY24E	FY25E
Working capital/Sales	4.3%	4.8%	9.2%	11.6%	12.1%
Net debt/Equity	nm	145.1%	147.4%	101.0%	53.0%
Net debt/EBITDA	3.7x	3.0x	2.7x	1.7x	0.9x

Maluation	EV01A	EV22A	EVODE	EV24E	EVOEE
valuation	FIZIA	FYZZA	FY23E	FYZ4E	FY25E
EV/CE		1.7x	2.5x	2.3x	2.1x
P/BV		3.1x	5.6x	4.2x	3.1x
EV/Sales		0.7x	1.1x	1.0x	0.8x
ev/ebitda		10.4x	13.4x	9.1x	6.8x
EV/EBITDA adjusted		10.2x	13.4x	9.1x	6.8x
EV/EBIT		29.9x	26.9x	15.0x	10.4x
EV/EBIT adjusted		28.4x	26.9x	15.0x	10.4x
P/E		251.8x	33.0x	16.4x	11.4x
P/E adjusted		219.6x	33.0x	16.4x	11.4x
ROCE pre-tax		6.4%	10.3%	16.0%	20.6%
ROE		1.4%	16.9%	25.4%	26.8%
EV/FCF		-6.0x	-27.7x	61.5x	18.5x
FCF yield		-26.4%	-4.8%	2.1%	6.9%
Dividend yield		0.0%	0.0%	0.0%	0.0%

#### Weaknesses

Lack of geographical diversification

Dependency on few, large software and hardware suppliers Newness of Electrospider and challenging competitive bioprinting landscape

#### Threats

Increased specialization and competition from large system integrators Challenging talent hiring and retention

Missed delivery on the new ventures (Bioprinting and Smart Factory development)

Management Roberto Rizzo, Chairman Marco Calini, Deputy Ch

Roberto Rizzo, Chairman and CEO Marco Calini, Deputy Chairman Elisabetta Cammarata, CFO Next events

29 September 2023 - 1H23



## **Executive Summary**

SolidWorld is a leading Italian enabler of additive manufacturing solutions capable of tailoring best-of-breed third-party solutions to clients' needs thanks to proprietary applications (Integr@). The recently developed, proprietary, game-changing bioprinter should allow the group to become an established player in the biomedical niche. In addition, SolidWorld is beginning to act as a contractor for the development of fully integrated and automated industry 5.0 next-gen smart-factories.

We set a TP of Eu7.2/share on a fully diluted basis (47% upside vs current price), based on a weighted average of 2025 EV/EBIT of proprietary AM technology peers (40%), 2025 EV/EBITDA of System Integrator peers (20%) and a 10Y DCF (40%). This corresponds to a non-diluted valuation of Eu9.2/share.

### The leading Italian enabler of Additive Manufacturing

SolidWorld is a one-of-a-kind 3D system integrator mainly for manufacturing companies, with 20 years of experience in the additive manufacturing field, a diversified portfolio (8,000+ customers, generating Eu61mn net sales in FY22) of top clients (e.g. Ferrari, Lamborghini, Leonardo, Ariston,...) and multiple collaborations with high-standing Italian Universities. The group distributes best-of-breed, third-party 3D scanning and printing hardware (32% of FY22 net sales), coupled with a third-party and proprietary 3D software (65%, of which almost 50% recurring). The ability to provide comprehensive hardware & software solutions, coupled with an in-depth expertise in the field, allows the group to create AM production processes that best suites the requirements of the client. The group has also an internal additive manufacturing division (3%) that offers 3D printing services for rapid prototyping through an internal production capacity located in two technology hubs in Italy. Additionally, SolidWorld has also recently started the production of a game-changing, proprietary 3D bioprinter ("Electrospider") capable of reproducing human tissues and organs to be used for medical research and treatment testing. Finally, leveraging on its long track-record and expertise, the company has also set up a new division ("SolidFactory") with the objective to assist clients in the implementation of next-gen smart factories (enabling the transition to the industry 5.0) acting as contractor and delivering turn-key solutions.

#### A provider of 360° additive manufacturing solutions with internal production capacity

SolidWorld is a one-of-a-kind 3D system integrator (software & hardware) for manufacturing companies with internal AM capacity



Source: Alantra, SolidWorld Group



## A structurally growing market amid Industry 5.0

The 3D printing (3DP) industry is a structural growing market driven by underlying trends: 1) Industry 5.0 and automation; 2) Production process in-shoring; 3) Mass customization; 4) needs of technology in other niche applications (Biomedical). According to a study from Hubs (a Protolabs company), the global 3D market is valued c. USD15bn and is expected to experience a 24% CAGR 22-26E, reaching over USD44bn by 2026. The increasing use of advance 3DP technologies accelerate the path towards industry 5.0 due to its capability to enable a more efficient manufacturing process by reducing lead times and automate production. Furthermore, the rising interests in in-shoring should trigger a strong expansion in 3DP manufacturing solutions, which improve supply chain (lower headcount) and reduce wastes. Moreover, 3DP solutions respond to the increasing need of mass customization. As additive manufacturing technologies continue to mature, shifting from prototyping to production, several industries are embracing them for mission critical applications (automotive, aerospace & defence, etc.). Biomedical, for instance, is a niche where additive manufacturing is making game-changing steps ahead when it comes to drug and treatment testing, mostly for complex treatments and invasive surgeries. According to Precedence Research, the global bioprinting market is valued USD2.13bn and is expected to grow by 18.5% CAGR 22-30E, reaching USD8.3bn in 2030.



The global 3D printing market evolution (lhs; FY14-26E USDbn) and key factors for choosing 3DP solutions (rhs, %)

Source: Hubs, 3D printing trend report 2022

### Deep expertise to accompany clients all-around

We believe that SolidWorld is a unicum in the Italian market. Contrarily to its competitors, the group can provide complete additive manufacturing solutions, supporting the client both on the hardware and the software side, with proprietary solutions and internal capabilities that can tailor the project to the specific needs of the client. As a matter of fact, SolidWorld is not a simple distributor but a true partner and advisor to the client for additive manufacturing projects. We believe that no other player in Italy has the same business model. Overall, there are two kinds of potential competitors in our view: 1) Local system integrators specialized in 3D printing (Nuovamacut, Prisma Tech, 3DZ, Elmec 3D, Selltek and CMF Marelli); 2) International IT (generalist) system integrators (Reply Hermes, NTT Data, Infosys, and CGI) with a track record in the field and an established network with key technology providers (e.g. accredited partners of Dassault Systèmes). While we believe that the first group lacks the scale and expertise needed to accompany clients in a 360° manner, we expect the generalist nature of the second cohort to be a possible disadvantage when it comes to complex projects. Furthermore, considering the recent launch of the Electrospider, the group should see increasing competition from few other global 3D bioprinter manufacturers that develop similar machines, like Advanced Solutions, Aspect Biosystems, Cellink, Allevi and others. However, we have reasons to believe that the device patented by the group brings sizeable improvements over existing technologies, mostly due to the potential to inject 6 different biomaterials simultaneously coupled with the ability to mix extrusion and electrospinning techniques, allowing for continuous filaments of materials at nanoscale dimensions. Finally, despite the newness of the next-gen smart factory business, we expect the group to find some competition from players of the likes of Dorst and AM-Flow. Being able to provide comprehensive, turn-key solutions should be a key factor in this field, together with the ability to provide clients with sector-specific knowledge in different industries.



#### Solid competitive advantages across each business area

The group primarily competes with other AM system integrators for now, boasting a bigger size and a higher expertise than Italian local specialized players



Source: Alantra, Companies' websites

### Proprietary bioprinter, industry 5.0 and UAE

SolidWorld is proactively shifting from reseller of third-party 3D printing solutions to producer of proprietary additive manufacturing technology. We expect the group to become an established player in the biomedical niche, leveraging on the newly developed "Electrospider" bioprinter as well as its established knowledge in the field. Furthermore, SolidWorld has recently launched the platform SolidFactory to provide manufacturing clients with consulting services for the creation of next-gen smart factories (leveraging on its own product catalogue) and the development of industry 5.0 production processes, with the final objective to achieve full automation. Results from this division should become material as from 2023, though relatively small in terms of total revenues. The same should happen for the new bioprinter, which should already start to contribute to the group's top line in 2023, becoming substantial from 2024. Both bioprinting technologies and industry 5.0 should be, in turn, instrumental to the international expansion, focusing on UAE countries (specifically Dubai), which aim to become a leading 3D printing technology hub by 2030 with focus on medical and consumer products. M&A could be an additional accelerator to business growth.

#### Three main strategic levers to trigger further growth

Penetration in the bioprinting market with proprietary tech, creation of next-gen smart factories and expansion into UAE



Source: Alantra, SolidWorld



## Proprietary bioprinter to boost growth and margins

While the traditional 3D printing system integration activity and additive manufacturing services of the group should continue to grow in the years to come, we expect the proprietary bioprinter to start assuming a substantial relevance from 2024, when the group should sell more than 5 machines, each of them for an average value of around Eu500k. We expect net revenues to experience a 14.1% CAGR from 2022 to 2025, resulting from an 11.4% CAGR 22-25E in the system integration business (including additive manufacturing services, which should remain relatively small considering the type of service offered) and an increase from zero to Eu6mn in the bioprinting one. The system integration business should also be aided by the gradual rump up of the activities related to the next-gen smart factory development, even though we believe that its contribution should materially kick in from 2024. Looking at profitability, we expect Adj. EBITDA to experience a sizeable expansion in the years to come, with margins moving up from 6.7% in 2022 to 11.9% in 2025, reaching Eu10.6mn. This growth should stem from operational leverage, an increase in sale of the in-house software Integr@, and the sale of the proprietary bioprinter, which demands a much higher Adj. EBITDA margin, around 30%. We expect D&A to slightly increase in 2023 as a result of investments for the set-up of the production facility for the Electrospider, finalised in the first half of 2023. Despite this, Adj. EBIT should grow from Eu1.5mn in FY22A to Eu6.9mn in FY25E, reaching an Adj. EBIT margin of 7.8% by then (from 2.4% in FY22A). The patent box awarded to the group should decrease the % of taxes to be paid in the next 5 years, with Net Profit growing from Eu0.1mn in FY22A to Eu5.0mn in FY25E.



#### Proprietary Electrospider to drive revenues growth and margin expansion

Source: Alantra, SolidWorld

### Investments in bioprinter and software dev

Despite the prevalence of system integration activities in the business model of the group, the development of proprietary technology (both software and hardware) requires some investments (resulting in a ca. 7% avg. CAPEX/Sales in 2021 and 2022). These investments were focused on the development of 1) the bioprinter and its software, and 2) Integr@ together with other proprietary software to integrate and expand the functionalities of third-party ones, allowing for a wide flexibility and customization for the client. At the same time, we believe that maintenance CAPEX should remain relatively low (which we expect to be at around 1% of sales). Besides this, the group has limited NWC requirements that should slightly increase as a result of the production of the new bioprinter, which should mainly result in some increase in days of inventory. All in all, the group should go back to positive cash flow territories from 2024, considering that we expect some remaining CAPEX connected to the construction plant for the Electrospider to be incurred in 2023. Positive cash flow generation (a total of Eu5.1mn in 2024 and 2025) should help diminish the net debt position, which as of YE22 stood at Eu12.3mn (3.0x Net Debt/EBITDA) and is expected to decrease to Eu9.9mn by 2025 (0.9x Net Debt/EBITDA).



#### Net debt evolution 22A-25E





Source: Alantra, SolidWorld

### Valuation: TP of Eu7.2/share (Eu9.2 non-diluted)

Listed in July 2022, SolidWorld's stock price is up 140% from Eu2.0/share to Eu4.9/share, compared to +17% performance of the FTSE Italian Mid Cap index in the same period. We believe that no direct comparable is available in Italy. However, there are two main peer groups that in our view serve as a good proxy to estimate the value of SolidWorld: 1) International players that produce proprietary additive manufacturing technology (3D Systems, Stratasys, Materialise, Prodways, Dassault Systemes, ANSYS), both the ones which develop 3D CAD software solutions and the ones that produce 3D printing and scanning hardware; 2) System Integrators with additive manufacturing capabilities (Visiativ, CENIT, Infosys, CGI, Reply). While SolidWorld currently fits more with the second sample (as it primarily acts as a system integrator of third-party technology with some software capabilities and internal application), we expect the group to increasingly shift towards a producers of proprietary 3D software applications and bioprinting hardware, thus gradually getting closer to the first group. As a matter of fact, considering 2025 estimates, almost 20% of EBITDA will be coming from the sale of Electrospider, with an additional portion of revenues coming also from proprietary software (like Integr@ or other projects of the likes of INTEGRATEDXR). While we consider EV/EBITDA for system integration peers, we use EV/EBIT for producer of AM technology to better compare businesses with a different capex intensity. In both cases we look at 2025, when proprietary technology should start to play a major role in revenues generation and profitability. A long-term DCF can be a good alternative to a multiples valuation. Furthermore, recent relevant deals (Stratasys merges with Desktop Metal; Nikon public tender offer on SLM Solutions; etc.) and partnerships in the industry (Novo Nordisk multi-million agreement with Aspect Biosystems) confirm the positive outlook and market sentiment in the 3D printing industry. We set a TP of Eu7.2/share on a fully diluted basis (47% upside vs current price), based on a weighted average of 2025 EV/EBIT of proprietary AM technology peers (40%), 2025 EV/EBITDA of System Integrator peers (20%) and a 10Y DCF (40%). This corresponds to a non-diluted valuation of Eu9.2/share.

**Main risks**. 1) Newness of Electrospider and challenging competitive bioprinting landscape; 2) Dependency on few, large software and hardware suppliers; 3) Geographical concentration risk in Italy; 4) Increased specialization and competition from large system integrators; 5) Lack of track record in international expansion; 6) Dependency from key people; 7) Challenging talent hiring and retention.



## The leading Italian enabler of Additive Manufacturing

SolidWorld is a one-of-a-kind 3D system integrator mainly for manufacturing companies, with 20 years of experience in the additive manufacturing field, a diversified portfolio (8,000+ customers, generating Eu61mn net sales in FY22) of top clients (e.g. Ferrari, Lamborghini, Leonardo, Ariston,...) and multiple collaborations with high-standing Italian Universities. The group distributes best-of-breed, third-party 3D scanning and printing hardware (32% of FY22 net sales), coupled with a third-party and proprietary 3D software (65%, of which almost 50% recurring). The ability to provide comprehensive hardware & software solutions, coupled with an in-depth expertise in the field, allows the group to create AM production processes that best suites the requirements of the client. The group has also an internal additive manufacturing division (3%) that offers 3D printing services for rapid prototyping through an internal production capacity located in two technology hubs in Italy. Additionally, SolidWorld has also recently started the production of a game-changing, proprietary 3D bioprinter ("Electrospider") capable of reproducing human tissues and organs to be used for medical research and treatment testing. Finally, leveraging on its long track-record and expertise, the company has also set up a new division ("SolidFactory") with the objective to assist clients in the implementation of next-gen smart factories (enabling the transition to the industry 5.0) acting as contractor and delivering turn-key solutions.

#### A provider of 360° additive manufacturing solutions with internal production capacity

SolidWorld is a one-of-a-kind 3D system integrator (software & hardware) for manufacturing companies with internal AM capacity



Source: Alantra, SolidWorld Group

## An AM expertise and network developed throughout 20 years of history

The group boasts a long-dated history in the field of additive manufacturing, with a proven ability to acquire and integrate companies along the way. Created in 2003 by its founder Roberto Rizzo (who had a strong expertise in the field of 3D printing), the company is a top-tier system integrator of complex additive manufacturing solutions with internal software capabilities to accommodate every clients' needs when it comes to the digitalization of production processes. The company offers turn-key solutions with a comprehensive offer of best-of-breed hardware (reseller of 3D printers and scanners; 32% of FY22 net sales) and software (3D advanced design systems, both third-party and proprietary; 65%). To complete its offer, the group also provides clients with consultancy, training and technical assistance to accompany them throughout the implementation of this new technology/production process. The group has also an internal additive manufacturing division (3%) that offers additional 3D printing services for rapid prototyping through an internal production capacity located in the technology hubs based in Ponzano Veneto and Bentivoglio. More recently, the group has added two additional business areas: 1) Development, production and distribution of a proprietary Bioprinter (Electrospider); 2) Contractor of turn-key next-gen smart factories (Industry 5.0).



#### A 3D printing expertise gained in 20 years of history in the industry

Created in 2003 by its founder Roberto Rizzo, SolidWorld is a top-tier system integrator of complex additive manufacturing solutions with internal software capabilities to accommodate every clients' needs



Source: SolidWorld

SolidWorld boasts a portfolio of 8,000+ clients (in several industries/end-markets), working with large companies of high-standing (of the likes of Ferrari, Lamborghini, Leonardo, Ariston,...) across Italy through 14 administrative/commercial branches, 3 technical centers (used for rapid prototyping services, training, testing, as well as for services/production for the biomedical vertical) and more than 200 employees. Client diversification is extremely high (with the #1 client accounting for only 1% of 2021 sales and the top 10 reaching only 8%), while suppliers are mostly concentrated into two (accounting for 70% of costs from suppliers in 2021), which we believe should refer to Dassault Systèmes and Stratasys. All-in-all, despite the substantial suppliers concentration, we believe that 1) the company has deep capabilities and extremely strong ties with key suppliers (SolidWorld is the only "Authorized Stratasys Direct Manufacturing Partner" in Italy, as well as a "Certified Training and Support provider" of Dassault Systèmes) and 2) large software and hardware brands do not normally engage in the distribution of their products, but they rely on certified partners (like SolidWorld) to do so. Furthermore, the group collaborates with several top Italian universities (University of Pisa, University of Bologna, University of Milan) to bring innovation into the additive manufacturing field (primarily in the biomedical niche).



#### High client diversification and strong ties with key suppliers

SolidWorld serves a portfolio of 8,000+ clients (in several industries/end-markets), working with large companies of high-standing (of the likes of Ferrari, Lamborghini, Leonardo, Ariston,...) across Italy



Source: Alantra, SolidWorld Group. Note Top 10 clients and suppliers refer to 2021 data

#### Software Solutions

The group takes part in the sale of 3D design and production software licenses, their initial installation, as well as the subsequent assistance, maintenance and updates. More precisely, SolidWorld is specialised in the commercialization of software solutions, both proprietary (Integr@) and third-parties (such as "Solid Works", a 3D CAD suite produced by Dassault Systèmes), that enable the design and production of 3D objects in multiple end-markets (automotive, aviation, space, biomedical, ...) and that can be installed both in cloud and on premise (with an ongoing technological transition to the former). The proprietary software Integr@ is usually sold in bundle with the 3D CAD design software SolidWorks as these solutions integrate and expand its functionalities. Specifically, Integr@ manages all the information at the core of an integrated CAD/PDM/ERP system, linking the technical department with production, design, logistics, procurement, etc. Additional consulting and training services are also offered to clients, together with on-demand 3D scanning services. The group has recently announced a new important collaboration with Marotta S.r.l. and Vection Technologies for the construction of the prototype of the first European Hypersonic Aircraft for civil transport, developing a proprietary software (INTEGRATEDXR) and delivering the integration between the systems by providing a seamless collaborative platform for the design and development of complex aerospace projects.



#### Example of 3D Software solutions sold by the group

SolidWorld is specialized in the commercialization of software solutions, both proprietary (Integr@) and third-parties (such as "Solid Works") that enable the design and production of 3D objects in multiple end-markets

Software	Description	Owner
<b>S SOLID</b> WORKS	Most comprehensive 3D CAD design software on the market	Third-Party (Dassault Systèmes)
3DEXPERIENCE®	3DEXPERIENCE (3DX) is a business and innovation platform that provides organizations with a holistic, real-time vision of their business activity and ecosystem	Third-Party (Dassault Systèmes)
	Powered by the 3DEXPERIENCE platform, DELMIA empowers manufacturing, supply chain and service providers to efficiently plan, manage, optimize, and execute their operations	Third-Party (Dassault Systèmes)
	CATIA delivers the unique ability not only to model any product, but to do so in the context of its real-life behavior. It is mainly used in the aerospace, automotive, and marine sectors	Third-Party (Dassault Systèmes)
SolidCAM The Solid Platform for Manufacturing	SolidCAM supports all CNC applications and provides the revolutionary iMachining that saves 70% and more in machining time and dramatically extending tool life	Third-Party (SolidCAM)
Integr@	EGL@ Software that manages the information at the core of an integrated CAD/PDM/ERP system, improving product lifecycle management	
SWOOD	CAD/CAM system integrated with SolidWorks and dedicated to woodworking	Third-Party (Eficad)
Configure & Automate	Create customizable configurators and a CPQ solution that anyone can use. Generate manufacturing drawings, 3D models and professional sales docs accurately and automatically	Third-Party (Drive Works)
🛱 ELYSIUM	Software that eliminates any issues related to the migration between different CAD platforms and simplifies the translation process with ElysiumCadFeature	Third-Party (Elysium)
Smap 3D DESIGNED FOR PRODUCTIVITY	Smap3D Plant Design is an proven software for 2D/3D plant and pipeline planning, fully integrated in SOLIDWORKS. It covers the whole process from P&ID to Piping to Isometrics	Third-Party (Smap3D Plant Design)
Power Surfacing	Power Surfacing is the ideal SOLIDWORKS solution for industrial design / freeform organic surface / solids modeling. Creates high quality class A surfaces by default	Third-Party (nPower Software)

Source: Alantra, SolidWorld Group, Companies' websites

#### Hardware Solutions

SolidWorld is also specialized in the reselling of 3D scanning and 3D printing hardware of primary international producers, with a specific focus on solutions for large enterprises. In this business line, the group takes part in multiple activities ranging from the standard sale of printers and scanners, to the reselling of consumables and other ancillary services such as technical assistance, consulting, training and engineering (e.g. reverse engineering, 3D CAD reconstruction, ...).

#### Example of 3D Hardware solutions sold by the group

SolidWorld commercializes many international leading brands for a variety of applications



Source: Alantra, SolidWorld Group



#### Additive Manufacturing (AM) Solutions

To complement its portfolio of 3D software and hardware, the group offers additive manufacturing services through internal production capacity (2 technical hubs, one in Ponzano Veneto specialized on automotive, aviation, and sport applications, and one in Bentivoglio where production is accompanied by teaching/training premises). AM services consist in 1) rapid prototyping and 2) design, industrialization and production (small batches) for companies in the automotive, home appliance, sport, furnishing, eyewear and more.

#### Example of Additive Manufacturing production

Through internal production capacity SolidWorld offers to its clients rapid prototyping and small batch production services



Source: SolidWorld

## An increasing focus on the biomedical sector thanks to the new Electrospider

The company has increasingly specialized in the high-added-value niche of biomedical applications, gathering an expertise (by working with several hospitals) that allowed the company to start the development of its own technology in the field. The group, for instance, has indeed created a software to transform tomography and MRI scans of patients' organs in 3D printable digital models with materials similar to human tissues. More importantly, while SolidWorld has historically acted as pure reseller when it comes to 3D hardware technologies, in 2022 the group finalised the development (in partnership with the University of Pisa) of a game-changing, fully in-house developed, bioprinter ("Electrospider"). The machine is patented in EU, America and China, with clients being mostly biomedical research institutes and hospitals. The group expects to deliver the first machine in September 2023, and has the capacity to satisfy a demand of ca. 12 machines per year with current capacity (Eu500k each). The production of these bioprinters should be done in the technical hub in Sambuca by Bio3DModel (the company of the group in charge of the biomedical division).



#### Electrospider bioprinter in focus

The bioprinter developed by SolidWorld combines cutting edge technology, ease-of-use and extreme modularity



Source: Alantra, SolidWorld Group

## SolidFactory to assist clients in the implementation of next-gen smart factories

On top of its traditional system integration activity of 3D printing technology, the group has recently started to expand its spectrum of activities to the implementation of industry 4.0/5.0, next-gen smart factories (through the newly established subsidiary SolidFactory). This business should start contributing to revenues as from 2023, with a consequent rump-up in the years to come. SolidWorld develops 360° smart factories as a contract manufacturer, delivering turn-key solutions to the end clients, mixing automation, mechanical and digital skills to enable the redefinition of production processes from a digital standpoint. These kind of next-gen production facilities boast more flexibility (capable of realizing small batches at the cost of large-scale production), as well as higher speed, productivity and quality, in turn allowing clients to be more competitive. At the software level, SolidWorld implements DELMIA Works (produced by the group Dassault Systèmes), an ERP solution that simplifies and integrates sales, inventory, procurement, production, finance, HR and much more, creating a single source of truth. Additional internal software technology is integrated to provide tailor-made solutions to clients. Furthermore, the group has the ability to provide sector-specific knowledge in these kind of projects (ranging from automotive, to electronics, pharmaceutical, renewable energies, food processing and more).



#### Supporting companies to redefine their production processes in a digital key

SolidWorld develops turn-key smart factories as a contract manufacturer, mixing automation, mechanical and digital skills



Source: SolidWorld Group

## Governance and shareholding structure

The group is composed of multiple subsidiaries, where the major or totality of the equity is owned by the parent company SolidWorld Group S.p.A. A process of governance and group simplification is ongoing, with a reorganization aimed to take advantage of operating, commercial and administrative synergies. The chairman, CEO and founder Roberto Rizzo boasts a long-dated experience in the sector, having worked in the CAD/3D industry for almost 20 years before establishing SolidWorld. Roberto Rizzo detains 36.60% of SolidWorld Group (while having a 46.91% of voting rights). The remaining shareholding is primarily composed of employees and managers (Marco Calini, deputy chairman, has 20.07%, while other employees subject to lock-up have 12.84%). Free float stands at 21.30%.

#### Group and shareholding structure

The group is composed of multiple subsidiaries. The shareholding base sees Roberto Rizzo at 36.6% and Marco Calini at 20.1% (direct & indirect holdings)



Source: SolidWorld. \*Company attributable to Roberto Rizzo; \*\* Company attributable to Marco Calini; \*\*\* Until 06 July 2024



# A structurally growing market amid Industry 5.0

The 3D printing (3DP) industry is a structurally growing market driven by few underlying trends: 1) Industry 5.0 and automation; 2) Production process in-shoring; 3) Mass customization; 4) needs of technology in other niche applications (Biomedical). According to a study from Hubs (a Protolabs company), the global 3D market is valued c. USD15bn and is expected to experience a 24% CAGR 22-26E, reaching over USD44bn by 2026. The increasing use of advance 3DP technologies accelerate the path towards industry 5.0 due to its capability to enable a more efficient manufacturing process by reducing lead times and automate production. Furthermore, the rising interests in in-shoring should trigger a strong expansion in 3DP manufacturing solutions, which improve supply chain (lower headcount) and reduce wastes. Moreover, 3DP solutions respond to the increasing need of mass customization. As additive manufacturing technologies continue to mature, shifting from prototyping to production, several industries are embracing them for mission critical applications (automotive, aerospace & defence, etc.). Biomedical, for instance, is a niche where additive manufacturing is making game-changing steps ahead when it comes to drug and treatment testing, mostly for complex treatments and invasive surgeries. According to Precedence Research, the global bioprinting market is valued USD2.13bn and is expected to grow by 18.5% CAGR 22-30E, reaching USD8.3bn in 2030.



#### The global 3D printing market evolution (lhs; FY14-26E USDbn) and key factors for choosing 3DP solutions (rhs, %)

The global 3D market is valued c. USD15bn and should post a 24% CAGR 22-26E, aided by faster lead, cost effectiveness and improve geometric complexity output

Source: Hubs, 3D printing trend report 2022

## A double-digit growth market aided by multiple underlying trends

The 3D printing (3DP) industry is a structural growing market driven by underlying trends: 1) Industry 5.0 and automation; 2) Production process in-shoring; 3) Mass customization; 4) needs of technology in niche applications (Biomedical). According to a study from Hubs (a Protolabs company), the global 3D market is valued c. USD15bn and is expected to experience a 24% CAGR 22-26E, reaching over USD44bn by 2026.



#### The global 3D printing market evolution (FY14-26E; USDbn)





Source: Hubs, 3D printing trend report 2022

#### 1) Accelerating the path towards Industry 5.0

3DP technology is evolving rapidly as it can now build larger components, achieve greater precision and a finer resolution at higher speeds and lower costs. This, together with the integration of other technologies (IoT, AI, cloud computing, automated robots, etc.) with a focus on human and sustainability aspects (which reflects the difference among industry 5.0 from 4.0), is expected to revolutionize the way companies manufacture. While 3DP is still mostly used for prototyping or producing small batches, its efficiency should trigger an increased interest from companies to integrate these solutions into their manufacturing process (enabling the shift towards Industry 5.0). Indeed, according to a survey from Hubs with over 300 companies, top key factors for choosing 3DP solutions are faster lead times (23%), price effectiveness with a lower cost of ownership (22%), improve geometric complexity (21%), among others. The ability to produce components with complex design and structure while cutting costs is a clear edge versus conventional manufacturing tools.

#### Factors choosing 3D printing technology (lhs, %) and production benefits matrix of additive manufacturing vs conventional (rhs)

Manufacturers can leverage on 3DP solutions to decrease cost per product with high level of complexity. Top key factors for choosing 3DP solutions are faster lead time (23%), cost effectiveness with a lower cost of ownership (22%) and an improved geometric complexity output (21%)



Source: Hubs, 3D printing trend report 2022 (left); Challenges of additive manufacturing, Deloitte 2019 (right)



#### 2) Production process in-shoring

The integration of 3DP solutions into conventional manufacturing tools would add strong additional benefits. The use of 3DP solutions would enable in-shoring capabilities with the possibility to shift parts of the production process internally. This would avoid the outsourcing of manufacturing to emerging countries (maintaining local production), improve supply chain and achieve higher sustainability (less shipping and use of materials/wastes).

#### Additive manufacturing (AM) supply chain improvements vs Conventional Manufacturing (CM)

AM strongly improves supply chain management as it enables shorter lead time, diminishes assembly steps and reduces CO2 emissions (lower number of deliveries)



Source: Challenges of additive manufacturing, Deloitte 2019

#### 3) Mass customization

As 3D printing continues to mature, its use is expanding from prototyping / product development to an effective support to the manufacturing process, as it becomes more viable for serial production. The flexibility in product design and manufacturing of 3DP solutions improve companies' capabilities to provide build-to-order products with a certain level of customization and design complexity, in a timely manner and at near mass production efficiency. New distribution modes (e.g. online distribution) give the customers the freedom to choose what they want out of an infinite number of products.

#### 3D Printing as the enabler of Mass Customization

Additive Manufacturing allows manufacturers to produce customized products in large volumes & near mass production efficiency



Source: Formlabs



### 4) Needs of technology in niche applications (Biomedical)

While most of the sectors' appetite for 3DP technology is triggered by production efficiency, other niches foresee 3DP solutions as the technological pivot to provide game-changing machines for mission-critical needs. For instance, additive manufacturing is making game-changing steps ahead in the biomedical field, mostly when it comes to drug and treatment testing for complex treatments and invasive surgeries. The ability to recreate organs / tissues opened new doors to regenerative medicine considering, for example, that cures can now be tested outside of the patient's body (recreating the disease in vitro) before being administered (as per the case of chemotherapy), or that researchers have at their disposal infinite high-fidelity copies of real human organs for their tests and experiments. According to Precedence Research, the global bioprinting market is valued USD2.13bn and is expected to grow by 18.5% CAGR 22-30E, reaching USD8.3bn in 2030.

#### The global bioprinting market forecast (FY22A-30E; USDbn)

The global bioprinting market is valued USD2.1bn and is expected to grow by 18.5% CAGR 22-30E, reaching USD8.3bn in 2030



Source: Precedence Research



## Deep expertise to accompany clients all-around

We believe that SolidWorld is a unicum in the Italian market. Contrarily to its competitors, the group can provide complete additive manufacturing solutions, supporting the client both on the hardware and the software side, with proprietary solutions and internal capabilities that can tailor the project to the specific needs of the client. As a matter of fact, SolidWorld is not a simple distributor but a true partner and advisor to the client for additive manufacturing projects. We believe that no other player in Italy has the same business model. Overall, there are two kinds of potential competitors in our view: 1) Local system integrators specialized in 3D printing (Nuovamacut, Prisma Tech, 3DZ, Elmec 3D, Selltek and CMF Marelli); 2) International IT (generalist) system integrators (Reply Hermes, NTT Data, Infosys, and CGI) with a track record in the field and an established network with key technology providers (e.g. accredited partners of Dassault Systèmes). While we believe that the first group lacks the scale and expertise needed to accompany clients in a 360° manner, we expect the generalist nature of the second cohort to be a possible disadvantage when it comes to complex projects. Furthermore, considering the recent launch of the Electrospider, the group should see increasing competition from few other global 3D bioprinter manufacturers that develop similar machines, like Advanced Solutions, Aspect Biosystems, Cellink, Allevi and others. However, we have reasons to believe that the device patented by the group brings sizeable improvements over existing technologies, mostly due to the potential to inject 6 different biomaterials simultaneously coupled with the ability to mix extrusion and electrospinning techniques, allowing for continuous filaments of materials at nanoscale dimensions. Finally, despite the newness of the next-gen smart factory business, we expect the group to find some competition from players of the likes of Dorst and AM-Flow. Being able to provide comprehensive, turn-key solutions should be a key factor in this field, together with the ability to provide clients with sector-specific knowledge in different industries.

#### Solid competitive advantages across each business area

The group primarily competes with other AM system integrators for now, boasting a bigger size and a higher expertise than Italian local specialized players



Source: Alantra, Companies' websites



## Better size and expertise vs locals, capacity to take on more complex projects vs generalists

Despite not being the only player in Italy, SolidWorld boasts an extremely solid and in-depth knowledge of additive manufacturing, being a specialized player with a mid-size and a long-dated history in the field. The competitive landscape on the Italian AM system integration market can be divided into two groups in our view: 1) Local system integrators specialized in 3D printing (Nuovamacut, Prisma Tech, 3DZ, Elmec 3D, Selltek and CMF Marelli); 2) International IT (generalist) system integrators (Reply Hermes, NTT Data, Infosys, and CGI) with a track record in the field and an established network with key technology providers (e.g. accredited partners of Dassault Systèmes). We believe that the first group lacks the scale and expertise needed to accompany clients in a 360° manner, as local players have a much smaller size and lack in terms of proprietary technology and software development competences, thus offering a lower level of personalization to clients. All in all, Nuovamacut is the closest competitor we could find, with a similar size (ca. Eu62mn revenues in FY22) to that of SolidWorld, a wide catalogue of software and hardware solutions, deep AM expertise and substantial proprietary software development. On the other end of the spectrum, we expect the generalist nature of the second cohort to be a possible disadvantage when it comes to complex projects. These players do not include in their offer a catalogue of additive manufacturing machines, and do not generally produce/sell proprietary, ready-to-use integration software.

#### In the sweet spot of AM system integration

With a mid-size, strong expertise, and a combination of hardware and software (also proprietary) SolidWorld stands out from the crowd



Source: Alantra, Companies' websites



## Game-changing Electrospider takes bioprinting to the next level

On top of the traditional system integration business of the group, SolidWorld is increasingly expanding its activities in the high-value biomedical niche: leveraging on years of experience working side by side with multiple primary hospitals and a partnership with the University of Pisa, SolidWorld has developed revolutionary bioprinting machine. Looking at the bioprinting landscape and focusing only on extrusion-based technology (one of the two used by Electrospider) we see only a handful of peers, with two of them reaching a simultaneous output of 6 different cells (BIO X6 and Dr. INVIVO 4D6) and each one exhibiting some unique capabilities (from interchangeable hands to extremely high biosafety levels, built-in cell incubators and more) that make the machine more suitable for certain applications than others. However, we have reasons to believe that the device patented by the group brings sizeable improvements over existing technologies, mostly due to the potential to inject even more than 6 different biomaterials simultaneously as well as the ability to mix extrusion and electrospinning techniques, allowing for continuous filaments of materials (without having to pause the printing process or, even worse, to move the cellular structure in another machine). Electrospinning also allows for not only micro but also nano-fabrications, thus being able to replicate with greater accuracy human tissues (which are composed of multiple cells combined with micro and nano elements) versus their extruder-based peers. Being able to reach a nano-scale is a great advantage and increase cell viability and proliferation, thus improving the final outcome, but it is not trivial to mix extrusion technology with electrospinning using a single end effector. Besides, electrospinning usually generates high shear stress on cells, while SolidWorld managed to diminish such drawback to the point that this technique can be mixed with extrusion. As a matter of fact, while there are different bioprinters on the market capable of using electrospinning and extrusion, none of them can actually combine the two, requiring separate processing station / change of tool / etc. and thus resulting in multiple interruptions during the printing process, in turn reducing quality and increasing working time. Finally, the high degree of freedom of the robotic arm gives the possibility to make different structures at the same time on the same working plane.

#### Overview of key extrusion-based bioprinting technology players

Electrospider is capable to inject even more than 6 different biomaterials simultaneously, mixing extrusion and electrospinning (thus allowing for nanoscale) techniques, allowing for continuous filaments of materials but also minimal shear stress

							₩	
Product Name	Electrospider	RX1 Bioprinter	BioAssemblyBot 500	BIOX6	Dr. INVIVO 4D6	3D-Bioplotter	Allevi 3	REG4LIFE
Producer	SolidWorld GROUP				OROKIT HEALTHCARE		↑ ALLEVI by	REGEMAT 9
Starting Price*	Ca. EUR 500,000	NA	Ca. USD 100,000	Ca. USD 40,000	Ca. USD 50,000	USD 100,000	USD 40,000	USD 30,000
Release Date	2022	2019	2021	2020	2020	2013	2018	2021
Technology	Robotic micro- extrusion bioprinting & electrospinning	Cartesian Microfluidic Extrusion	Robotic Microfluidic Extrusion	Cartesian Material Extrusion	Cartesian Material Extrusion	Cartesian Material Extrusion	Cartesian Material Extrusion	Cartesian Material Extrusion
# Cells simultaneously	6+	4 + 1 crosslinker + 1 buffer	2 cell types & up to 10 Hands in a single run	Up to 6	Up to 6	Up to 5	Up to 3	Up to 3
Features	Continuous filament through a single end effector. Mix of extrusion and electrospinning to reach nanoscale. Robotic arm with multiple degrees of freedom. Minimal shear stress even with Electrospinning	Very lowshear stress during printing allows for a higher viability. Portfolio of advanced plug-and-play printheads	The only six-axis biofabrication device with an integrated Class II, Type-A biosafety cabinet. Use up to 10 BAB Hands in a single run (vast catalogue)	Various deposition methods and dual pressure settings (enabling coaxial printing). Heated print bed and temperature control	Three extruder options. Built-in cell incubator for higher cell viability during & after printing. High sterilization with finest particle control system	Vibration-free robust machine frame. Heated platform. High sterilization with particle and sterile filters. Automated nozzle cleaning process.	Heated print bed, print head temperature control and photocuring possibilities. Nozzle Auto-calibration	Modular system with multiple extrusion tools. Head calibration automated with laser positioning system

Source: Alantra, VoxelMatters, Aniwaa, Companies' websites; \* Price of Electrospider represents a standard selling price and not a starting one



## Comprehensive, turn-key solutions as a key factor in the next-gen smart factory field

Following the red line of system integration, SolidWorld, through its subsidiary Solid Factory, aims to provides companies with an all-around, turn-key solution for the implementation of next-gen smart factories. It is not trivial to have skills related to both smart factory development and 3D printing, making SolidWorld best positioned to become the player of choice in the digital transition of production processes. Despite the yet startup phase of the business, we expect the group to find some competition from players of the likes of Dorst and AM-Flow in the future. The former is a German provider of proprietary 3D printing machines and complete production systems for ceramic and powder metallurgy products, while the latter (based in Amsterdam) builds end to end digital manufacturing solutions primarily focusing on the steps following to the 3D printing of an object. These two both use, at least partially, proprietary technology during the integration of smart factories, which is also (but at a smaller extent) the same for SolidWorld (with internal capabilities related to the proprietary software Integr@ and also to the technology related to MES applications). However, we believe that while these players implement and integrate industry 5.0 production lines, SolidWorld goes one step beyond that, acting as a contract manufacturer for the entire production plant, which also includes additional pieces of the puzzle, thus being the only counterparty for clients. Furthermore, the group is specialised on specific verticals to provide clients with sector-specific knowledge in different industries.

#### Example of Industry 5.0 AM solutions

Dorst and AM-Flow are direct competitors of SolidWorld when it comes to Industry 5.0 AM solutions, despite the capability of the group to provide turn-key solutions and not only smart factory production line design and implementation



Source: Alantra, AM Flow, Dorst



# Proprietary bioprinter, industry 5.0 and UAE

SolidWorld is proactively shifting from reseller of third-party 3D printing solutions to producer of proprietary additive manufacturing technology. We expect the group to become an established player in the biomedical niche, leveraging on the newly developed "Electrospider" bioprinter as well as its established knowledge in the field. Furthermore, SolidWorld has recently launched the platform SolidFactory to provide manufacturing clients with consulting services for the creation of next-gen smart factories (leveraging on its own product catalogue) and the development of industry 5.0 production processes, with the final objective to achieve full automation. Results from this division should become material as from 2023, though relatively small in terms of total revenues. The same should happen for the new bioprinter, which should already start to contribute to the group's top line in 2023, becoming substantial from 2024. Both bioprinting technologies and industry 5.0 should be, in turn, instrumental to the international expansion, focusing on UAE countries (specifically Dubai), which aim to become a leading 3D printing technology hub by 2030 with focus on medical and consumer products. M&A could be an additional accelerator to business growth.

### Three main strategic levers to trigger further growth

Penetration in the bioprinting market with proprietary tech, creation of next-gen smart factories and expansion into UAE



## Next-gen Smart Factory Development

Provide manufacturing clients with consulting services and solutions for the creation of next-gen smart factories and the development of industry 5.0



Source: Alantra, SolidWorld

## From reseller to producer, with proprietary bioprinting machine

SolidWorld has historically operated as a system integrator of third-party proprietary technology (and some proprietary software), leveraging on a deep expertise in the subject as well as strong relationships with key suppliers. However, thanks to years of product development and research (together with the University of Pisa) as well as a long track record of working with multiple hospitals on biomedical projects, the picture is now partially changing as the group has started the production of its innovative, proprietary bioprinter Electrospider (the software used by the machine is also 100% developed by the group, ensuring full compatibility/integration). While production of these machines started in February 2023, we expect the first deliveries to take place at the end of 2023. The company should gradually gain a strong positioning in the bioprinting market, despite volumes should remain limited going on considering the high level of personalization of the machine. Finally, SolidWorld also internally produces the software Integr@, with plans to further expand its sales in the future.



#### Proprietary hardware and software to drive growth

After years of product development and research, the group has started the production of its innovative, proprietary bioprinter

From reseller of third-party technology...

... to producer of proprietary devices and softwares



Source: Alantra, SolidWorld

### Industry 5.0 as a future growth boost

SolidWorld, through its subsidiary SolidFactory, is a contractor for the development of fully-integrated and automated industry 5.0 factories. The group has begun to offer tailor-made consulting services to support companies in their digital transformation journey towards automation. In this kind of projects SolidWorld takes care of all the aspects of the factory, from the 3D Printing machines to the installation of PV panels on the rooftop, to the implementation of collaborative robots, acting as the sole counterparty of the project and delivering a turn-key solution to the client, leveraging on its product catalogue of best-of-breed 3D printers and software. However, while the company has already launched its offer, we expect this business to assume a stronger relevance in later years.

#### Contractor for the development of turn-key, next-gen smart factories

The group has begun to offer tailor-made consulting services to support companies in their journey towards industry 5.0



Source: SolidWorld



## Geographical diversification in UAE

SolidWorld has ambitions to expand geographically, mainly to the UAE, where a new subsidiary (SolidWorld Middle East) has already been created. Both the newly developed bioprinter and the intention to increasingly expand its services to the creation of next-gen smart factories should be instrumental to this expansion considering the strong interest for industrial automation and biomedical technologies in Dubai and nearby geographies. Despite having already set up their subsidiary in Dubai, geographical expansion should start to become substantial in later years, from 2024/2025. This geographical target is key in the additive manufacturing industry as UAE aim to become a leading 3D printing technology hub by 2030 with focus on medical and consumer products.

#### International expansion in UAE

As UAE aim to become a leading 3D printing technology hub by 2030, and SolidWorld wants should expand in the area



Source: SolidWorld



## Proprietary bioprinter to boost growth and margins

While the traditional 3D printing system integration activity and additive manufacturing services of the group should continue to grow in the years to come, we expect the proprietary bioprinter to start assuming a substantial relevance from 2024, when the group should sell more than 5 machines, each of them for an average value of around Eu500k. We expect net revenues to experience a 14.1% CAGR from 2022 to 2025, resulting from an 11.4% CAGR 22-25E in the system integration business (including additive manufacturing services, which should remain relatively small considering the type of service offered) and an increase from zero to Eu6mn in the bioprinting one. The system integration business should also be aided by the gradual rump up of the activities related to the next-gen smart factory development, even though we believe that its contribution should materially kick in from 2024. Looking at profitability, we expect Adj. EBITDA to experience a sizeable expansion in the years to come, with margins moving up from 6.7% in 2022 to 11.9% in 2025, reaching Eu10.6mn. This growth should stem from operational leverage, an increase in sale of the in-house software Integr@, and the sale of the proprietary bioprinter, which demands a much higher Adj. EBITDA margin, around 30%. We expect D&A to slightly increase in 2023 as a result of investments for the set-up of the production facility for the Electrospider, finalised in the first half of 2023. Despite this, Adj. EBIT should grow from Eu1.5mn in FY22A to Eu6.9mn in FY25E, reaching an Adj. EBIT margin of 7.8% by then (from 2.4% in FY22A). The patent box awarded to the group should decrease the % of taxes to be paid in the next 5 years, with Net Profit growing from Eu0.1mn in FY22A to Eu5.0mn in FY25E.

#### Proprietary Electrospider to drive net revenues growth and margin expansion

The system integration business should be aided by bioprinter sales and next-gen smart factories development (both margins and growth)



Source: Alantra, SolidWorld

## System integration / AM business back to double digit, bioprinter to give a further boost

After a tough 2022 (net sales up only 4.8% yoy) marked by supply chain constraints, we expect net revenues to go back to double-digit rates, with a 22-25 CAGR of 14.1%, growing from Eu57.7mn to Eu85.9mn. The 3D system integration / AM business should experience a 11.4% 22-25 CAGR in the next 3 years. While 2022 has been a tough year for the sales of hardware (which grew only by 1.7% to Eu18.5mn, as a result of supply constraints from suppliers) and software (up 6.5% yoy to Eu37.5mn, as sales are reliant on hardware sales), we expect this trend to revert in future years, with procurement almost back to normal. Furthermore, the software line should also benefit from the intention of the group to expand the sales of its proprietary application Integr@. Out of the Eu37.5mn of software revenues, ca. 50% represent recurring revenues, including subscription of software (lower margins considering that the majority comes from third-party software licenses) and maintenance. Overall, software revenues should experience a 12.5% CAGR 22-25, above the 9.0% CAGR of hardware, excluding sales of Electrospider. Indeed, sales of the bioprinter are expected to effectively kick-off in 2024, as the delivery of the first printers should take place in the last months of 2023, reaching Eu6.0mn in FY25E from zero in FY22. The additive manufacturing business should also experience a sizeable growth going forward (14.0% 22-25E CAGR), however, considering that it is primarily used for rapid prototyping and small batches production, we expect it to remain limited in terms of revenues.



#### Software and bioprinting revenues projections

Overall, software revenues should experience a 12.5% CAGR 22-25, above the 9.0% of hardware, excluding sales of Electrospider, which we expect to effectively kick-off in 2024



Source: Alantra, SolidWorld

### Adj. EBITDA margin expansion in the coming years

After a sizeable increase in FY21, EBITDA remained flat yoy in FY22 as it was negatively affected by noncapitalised costs connected to the biomedical project (-30bbp). While we believe that the 3D system integration and additive manufacturing businesses should experience a slight margin expansion going forward, the kick-off of Electrospider sales should demand a much higher EBITDA % (ca. 30% at full steam), with a consequent increase in margin mainly as from 2024, when we expect the business to sell more than 5 printers. The increase in sales of the in-house software Integr@ should also demand a higher Adj. EBITDA margin. The group is undergoing a project of reorganization which should result in an increase in margin in 2023 thanks to synergies coming from the reduction in the number of companies under the same group. Operating leverage should allow SolidWorld to expand its margins in the system integration division. All in all, we expect adj. EBITDA to grow from Eu4.1mn in FY22 to Eu10.6mn in FY25E, with EBITDA margin reaching 11.9% (from 6.7% in 2022).

#### EBITDA Margin to expand significantly

Margin expansion in the 3D system integration & AM business with push from kick-off of the sales of Electrospider, which generates a higher % EBITDA



Source: Alantra, SolidWorld



## Adj. EBIT & Net Profit to grow to respectively Eu6.9mn and Eu5.0mn in FY25E

We expect Adj. EBIT and Net profit to grow from Eu1.5mn and Eu0.1mn in 2022, respectively, to Eu6.9mn and Eu5.0mn, reaching margins of 7.8% and 5.6% (from 2.3% and 0.2%). Despite the slight increase in D&A expected for 2023 (connected with the expected investments in the production facility used for the Electrospider business, which should be completed in the first half of 2023), we believe that Adj. EBIT should grow above Adj. EBITDA in terms of CAGR (at a 67% 22A-25E CAGR vs 37%). Furthermore, taxes should be limited in the years to come as a result of the patent box obtained by the company (that should last for 5 years starting from 2022).

### Evolution of Adj. EBIT and Net Profit – FY22A to FY25E

We expect Adj. EBIT and Net profit to grow from Eu1.5mn and Eu0.1mn in 2022, respectively, to Eu6.9mn and Eu5.0mn, reaching margins of 7.8% and 5.6% (from 2.3% and 0.2%)



Source: Alantra, SolidWorld



## Investments in bioprinter and software development

Despite the prevalence of system integration activities in the business model of the group, the development of proprietary technology (both software and hardware) requires some investments (resulting in a ca. 7% avg. CAPEX/Sales in 2021 and 2022). These investments were focused on the development of 1) the bioprinter and its software, and 2) Integr@ together with other proprietary software to integrate and expand the functionalities of third-party ones, allowing for a wide flexibility and customization for the client. At the same time, we believe that maintenance CAPEX should remain relatively low (which we expect to be at around 1% of sales). Besides this, the group has limited NWC requirements that should slightly increase as a result of the production of the new bioprinter, which should mainly result in some increase in days of inventory. All in all, the group should go back to positive cash flow territories from 2024, considering that we expect some remaining CAPEX connected to the construction plant for the Electrospider to be incurred in 2023. Positive cash flow generation (a total of Eu5.1mn in 2024 and 2025) should help diminish the net debt position, which as of YE22 stood at Eu12.3mn (3.0x Net Debt/EBITDA) and is expected to decrease to Eu9.9mn by 2025 (0.9x Net Debt/EBITDA).

#### Net debt evolution 22A-25E

Despite the CAPEX that should be required to complete the production plant for Electrospider and to develop proprietary software applications, we expect the group to improve its net debt position from Eu12.3mn in 2022 to Eu9.9mn in 2025



Source: Alantra, SolidWorld

## CAPEX to finance development of proprietary software & hardware solutions

The CAPEX invested by the group has been addressed towards the development of proprietary software and the game-changing bioprinter, thus resulting in a substantial cash-out in the past years. We expect maintenance CAPEX to be limited in the future (ca. 1% of sales), with some additional investments in software development (avg CAPEX / Sales ratio of 4.5% in FY23E to FY25E, down from 8.4% in FY22A) to integrate and expand the functionalities of third-party ones, allowing for a wide flexibility and customization for the client. We believe that the operating cash flow that the group is expected to generate in the period 23E-25E (cumulated Eu12.8mn) should be more than enough to cover for CAPEX (Eu10.4mn), also considering the investment made by the company in 2023 (and ongoing) to build and set up the new plant for the production of Electrospider. Furthermore, subsequent to the reorganization of the group structure, SolidWorld has spun off (in 2022) most of its financial assets, consequently recognising in the balance sheet its headquarter, thus resulting in a substantial increase in PP&E.



CAPEX/Sales & Fixed Assets / Sales should diminish despite continued investments in software development

CAPEX / Sales ratio should average at 4.5% in the period FY23E to FY25E, down from 8.4% in FY22A



Source: Alantra, SolidWorld

### Limited NWC needs despite some increase in DIO

NWC has experienced substantial changes between FY20A and FY21A, mainly due to fluctuations in unearned revenues and prepaid expenses of software licenses (which are purchased from suppliers and sold to clients). We expect a progressive increase in NWC, which should mainly stem from the increase in inventory connected to the start of the production of Electrospider. We see DIO doubling from a very low 16 days to 35 in 2023, then reaching 40 in 2024 (when the production of Elctrospider should be fully up and running). DSO should stabilize at 117 and DPO should instead slightly increase to 95, from 87 in FY22A, as we expect suppliers of materials for the production of the new bioprinter to have a lower bargaining power than the ones that the company is currently working with on the system integration business (as the latter are market leading players with advanced 3D printing technologies). All-in-all, we do not expect a substantial cash absorption from NWC, with a total of Eu7.8mn cumulated from FY23E to FY25E.

#### Increasing NWC/Sales resulting from internal production of Elecrospider

After a decrease in NWC in 2021 (resulting from fluctuations in unearned revenues and prepaid expenses) we expect inventory to increase in % of revenues in 2023 due to the addition of production activities for the new bioprinter



Source: Alantra, SolidWorld



## FCF generation from 2024 with an improvement of the NFP

The group should go back to positive cash flow territories from 2024, considering that we expect some remaining CAPEX connected to the new construction plant for the Electrospider to be incurred in 2023. All in all, we expect positive cash flow generation (a total of Eu5.1mn in 2024 and 2025) should help diminish the net debt position, which as of YE22 stood at Eu12.3mn (3.0x Net Debt/EBITDA) and is expected to decrease to Eu9.9mn by 2025 (0.9x Net Debt/EBITDA).

#### Positive FCF from 2024 should improve the NFP

While 2023 should still be impacted by the CAPEX for the production facility of Electrospider, 2024 should normalize (with CAPEX only used for maintenance and software dev), thus allowing for positive FCF generation



Source: Alantra, SolidWorld



# TP of Eu7.2/share (Eu9.2 non-diluted)

Listed in July 2022, SolidWorld's stock price is up 140% from Eu2.0/share to Eu4.9/share, compared to +17% performance of the FTSE Italian Mid Cap index in the same period. We believe that no direct comparable is available in Italy. However, there are two main peer groups that in our view serve as a good proxy to estimate the value of SolidWorld: 1) International players that produce proprietary additive manufacturing technology (3D Systems, Stratasys, Materialise, Prodways, Dassault Systemes, ANSYS), both the ones which develop 3D CAD software solutions and the ones that produce 3D printing and scanning hardware; 2) System Integrators with additive manufacturing capabilities (Visiativ, CENIT, Infosys, CGI, Reply). While SolidWorld currently fits more with the second sample (as it primarily acts as a system integrator of third party technology with some software capabilities and internal application), we expect the group to increasingly shift towards a producers of proprietary 3D software applications and bioprinting hardware, thus gradually getting closer to the first group. As a matter of fact, considering 2025 estimates, almost 20% of EBITDA will be coming from the sale of Electrospider, with an additional portion of revenues coming also from proprietary software (like Integr@ or other projects of the likes of INTEGRATEDXR). While we consider EV/EBITDA for system integration peers, we use EV/EBIT for producer of AM technology to better compare businesses with a different capex intensity. In both cases we look at 2025, when proprietary technology should start to play a major role in revenues generation and profitability. A long-term DCF can be a good alternative to a multiples valuation. Furthermore, recent relevant deals (Stratasys merges with Desktop Metal; Nikon public tender offer on SLM Solutions; etc.) and partnerships in the industry (Novo Nordisk multi-million agreement with Aspect Biosystems) confirm the positive outlook and market sentiment in the 3D printing industry. We set a TP of Eu7.2/share on a fully diluted basis (47% upside vs current price), based on a weighted average of 2025 EV/EBIT of proprietary AM technology peers (40%), 2025 EV/EBITDA of System Integrator peers (20%) and a 10Y DCF (40%). This corresponds to a non-diluted valuation of Eu9.2/share.

#### Market performance since IPO



Listed in July 2022, SolidWorld's stock price is up 140% from Eu2.0/share to Eu4.9/share, compared to a +17% performance of the FTSE Italian Mid Cap index in the same period

Source: Factset, Alantra



## Valuation approach based on multiples of peers

While no direct listed peers are available in Italy, we can consider two clusters for a multiples analysis:

- 1. International players that produce proprietary additive manufacturing technology, i.e. 3D Systems, Stratasys, Materialise, Prodways, Dassault Systemes, and ANSYS. This group considers both companies that develop 3D CAD software solutions and the ones that produce 3D printing and scanning hardware. As a matter of fact, SolidWorld develops proprietary technology both in hardware (upcoming Electrospider) and software (Integr@ or other ad hoc applications like INTEGRATEDXR). The group is gradually shifting from reseller to producer and should accelerate in the coming years. All the players of this group are larger than SolidWorld in terms of revenues.
- 2. System Integrators with additive manufacturing capabilities, i.e. Visiativ, CENIT, Infosys, CGI, and Reply. We consider this cluster as, despite the ongoing shift to proprietary technology, the group still produces the vast majority of its revenues from system integration activities. Among these players, Visiativ and CENIT are the most comparable ones, taking part in digital transformation projects for production lines with the integration of 3D printing technology, while having a size and geographical exposure similar to that of SolidWorld. However, these two are pure system integrators, thus lacking in-house software and hardware development abilities.

#### Peers – Company description

We consider two peer groups: 1) International players that produce proprietary additive manufacturing technology; 2) System Integrators with additive manufacturing capabilities

Company	Country	Mkt Cap (Eu mn)	Company Description
Proprietary AM Technology Players			
3D Systems Corporation	UNITED STATES	1,133	3D Systems Corp. is a holding company, which engages in the provision of comprehensive three-dimensional printing solutions. It offers a comprehensive range of 3D printers, materials, software, haptic design tools, 3D scanners, and virtual surgical simulators. The company was founded by Charles W. Hull in 1986 and is headquartered in Rock Hill, SC.
Stratasys Ltd.	UNITED STATES	1,068	Stratasys Ltd. engages in the provision of applied additive technology solutions for industries including aerospace, automotive, healthcare, consumer products, and education. Its systems include desktop 30 printers for idea and design development, various systems for rapid prototyping and large production systems for direct digital manufacturing. The firm also develops, manufactures, and sells materials for use with its systems and provides related service offerings to its customers. The company was founded on March 3, 1998 and is headquartered in Eden Prairie, MN.
Materialise NV Sponsored ADR	BELGIUM	415	Materialise NV engages in the provision of additive manufacturing software and 3D printing services. It operates through the following segments: Materialise Software, Materialise Medical, and Materialise Manufacturing. The Materialise Software segment offers proprietary software worldwide through programs and platforms that enable companies to set up reliable and sustainable 3D printing production. The Materialise Medical segment includes medical software solutions, medical devices and other related products and services. The Materialise Manufacturing segment provides 3D printed services to industrial and commercial customers. The company was founded by Wilfried Vancraen and Hilde Ingelaere on June 28, 1990 and is headquartered in Leuven, Belgium.
Prodways Group SA	FRANCE	80	Prodways Group SA engages in the provision of three-dimensional ("3D") printing solutions. It operates through the following segments: Systems, Products, and Structure. The Systems segment offers 3D printing systems including resins and powders. The Products segment manufactures and markets 3D printed plastics and metal parts through direct and indirect sales channels. The Structure segment engages in product distribution and entrepreneurship. The company was founded by André-Luc Allanic in 2013 and is headquartered in Paris, France.
Dassault Systemes SA	FRANCE	55,220	Dassault Systèmes SA provides software solutions and consulting services. It operates through the following segments: Manufacturing Industries; Life Sciences & Healthcare; and Infrastructure & Cities. The Manufacturing Industries segment engages in transportation & mobility; aerospace & defense; marine & offshore; industrial equipment; high-tech; home & lifestyle; and consumer packaged goods & retail servicers. The Life Sciences & Healthcare segment engages in pharmaceuticals & biotech, medical devices & equipment, patient care services. The Infrastructure & Cities segment provides infrastructure, Energy & Materials, Architecture, Engineering & Construction, Cities, Public & Business Services. The company was founded by Charles Edelstenne on June 9, 1981 and is headquartered in Vélizy-Villacoublay, France.
ANSYS, Inc.	UNITED STATES	26,522	ANSYS, Inc. engages in the development and marketing of engineering simulation software and services. The firm's solutions include automotive, aerospace and defense, construction, energy, materials and chemical processing, autonomous engineering, and electrification. The company was founded by John A. Swanson in 1970 and is headquartered in Canonsburg, PA.
System Integrators with AM capabi	lities		
Visiativ SA	FRANCE	149	Visiativ SA engages in the design and development of digital transformation solutions. The firm provides solutions and services to plan, implement, manage and monitor transformations with a unique and innovative approach through the following pillars: Consult (consulting & support), Engage (solutions & deployment) and Connect (communities for exchange and sharing). The company was founded by Christian Donzel and Laurent Fiard in 1987 and is headquartered in Charbonnières- Les-Bains, France.
CENIT AG	GERMANY	113	CENIT AG is a software and information technology consulting company, which engages in the development of software systems and solutions. It operates through the following segments: Enterprise Information Management (EIM) and Product Lifecycle Management (PLM). The EIM segment covers trade and commerce, banks, insurance firms, and utilities. The PLM segment focuses on industrial customers, and the corresponding technologies. The company was founded by Falk Engelmann, Norbert Fink, Hubertus Manthey, Rüdiger Passehl, and Andreas Schmidt on April 1, 1988 and is headquartered in Stuttgart, Germany.
Infosys Limited	INDIA	59,924	Infosys Ltd. is a digital services and consulting company, which engages in the provision of end-to-end business solutions. It operates through the following segments: Financial Services, Retail, Communication, Energy, Utilities, Resources, and Services, Manufacturing, Hi-Tech, Life Sciences, and All Other. The company was founded by Dinesh Krishnan Swamy, Senapathy Gopalakrishnan, Narayana Ramarao Nagavara Murthy, Raghavan N. S., Ashok Arora, Nandan M. Nilekani, and S. D. Shibulal on July 2, 1981 and is headquartered in Bangalore, India.
CGI Inc. Class A	CANADA	20,010	CGI, Inc. engages in the provision of information technology and consulting services. It operates through the following segments: Western and Southern Europe, U.S. Commercial and State Government, Canada, U.S. Federal, Scandinavia and Central Europe, UK and Australia; Finland, Poland, and Baltics, Northwest and Central-East Europe, and Asia Pacific. The company was founded by Serge Godin and Andre Imbeau in June 1976 and is headquartered in Montreal, Canada.
Reply S.p.A.	ITALY	4,224	Reply SpA engages on conception, design and development of solutions based on the new communication channels and digital media. It supports the main European industrial groups in defining and developing new business models utilizing big data, cloud computing, customer relationship management, mobile, social media and Internet of Things paradigms. The firm also offers consultancy, system integration and application management and business process outsourcing. The company was founded by Mario Rizzante and Oscar Pepino in June 1996 and is headquartered in Turin, Italy.

Source: Factset, Alantra



SolidWorld should exhibit margins below those of peers in the period FY23-FY25E. However, we expect the business to post better revenues and EBITDA growths, with a 22-25E sales CAGR of 13.5% and an almost 40% EBITDA margin CAGR in the same period.

#### Financials - SolidWorld versus selected peers

Margins below peers, but above-average growth expected for sales and EBITDA

			FY23E - FY25E average margins				CAGR FY22A - FY25E				
Company	Country	Mkt Cap (Eu mn)	EBITDA Margin	EBIT Margin	Net Income Margin	Capex / Sales	Dividend Payout	Sales	EBITDA	EBIT	Net profit
SOLID WORLD GROUP SPA	ITALY	73	10.2%	6.1%	4.2%	4.5%	0.0%	13.5%	38.1%	70.3%	262.8%
PEERS	Average Median		18.1% 13.5%	14.0% 8.2%	10.7% 5.1%	2.8% 2.5%	19.6% 0.0%	8.3% 7.7%	-12.2% 7.8%	-1.7% 9.2%	-25.1% 11.2%
3D Systems Corporation Stratasys Ltd	UNITED STATES	1,133	3.0%	-0.9%	-0.4%	4.1%	0.0%	4.4%	-292.1%	-182.3%	-186.7% 78.7%
Materialise NV Sponsored ADR	BELGIUM	415	13.5%	4.1%	3.4%	na	0.0%	12.6%	40.8%	na	-285.4%
Prodways Group SA	FRANCE	80	10.3%	3.9%	3.2%	5.5%	0.0%	9.9%	4.5%	1.7%	38.7%
Dassault Systemes SA	FRANCE	55,220	36.2%	33.2%	26.6%	2.4%	20.8%	7.7%	7.8%	8.3%	8.3%
ANSYS, Inc.	UNITED STATES	26,522	45.7%	42.1%	33.8%	1.4%	0.0%	10.1%	15.2%	10.9%	11.2%
Proprietary AM Technology Players	Average Median		19.6% 11.9%	14.7% 4.9%	11.9% 4.0%	3.4% 3.4%	3.5% 0.0%	8.4% 8.8%	-31.3% 11.5%	-17.3% 8.3%	-55.9% 9.7%
Visiativ SA	FRANCE	149	11.3%	8.2%	5.1%	3.7%	18.4%	6.2%	7.7%	10.4%	13.2%
CENIT AG	GERMANY	113	10.1%	6.3%	3.8%	1.8%	86.6%	6.7%	22.5%	33.5%	14.0%
Infosys Limited	INDIA	59,924	24.3%	21.4%	16.9%	2.5%	70.2%	8.7%	10.0%	9.6%	10.5%
CGI Inc. Class A	CANADA	20,010	19.7%	16.5%	11.8%	0.9%	0.0%	7.6%	6.7%	8.8%	12.2%
Reply S.p.A.	ITALY	4,224	15.8%	13.1%	9.4%	1.8%	19.5%	11.6%	6.5%	7.0%	9.2%
System Integrators with AM capabilities	Average Median		16.2% 15.8%	13.1% 13.1%	9.4% 9.4%	2.2% 1.8%	38.9% 19.5%	8.1% 7.6%	10.7% 7.7%	13.9% 9.6%	11.8% 12.2%

Source: Factset, Alantra

Proprietary AM technology peers trade at higher multiples vs system integration ones. SolidWorld trades at a >50% discount vs the median FY25E EV/EBIT of proprietary AM technology peers, and at a >20% discount vs the median FY25E EV/EBITDA of system integrators with AM capabilities.

#### **Trading multiples**

Component	Country	Mkt Cap		EV/EBITDA			EV/EBIT			PE			EV/Sales	
Company	Country	(Eu mn)	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
SOLID WORLD GROUP SPA	ITALY	73	13.4 x	9.1 x	6.8 x	26.9 x	15.0 x	10.4 x	33.0 x	16.4 x	11.4 x	1.1 x	1.0 x	0.8 x
Premium (discount) to Peers' Median			7%	-17%	-22%	77%	11%	-14%	21%	-34%	-38%	-39%	-39%	-40%
PEERS	Average		14.8 x	17.4 x	11.5 x	26.9 x	16.7 x	19.1 x	35.5 x	28.3 x	22.9 x	3.3 x	2.9 x	2.6 x
	Median		12.6 x	11.0 x	8.7 x	15.2 x	13.5 x	12.1 x	27.3 x	25.1 x	18.5 x	1.8 x	1.6 x	1.4 x
			·						1					
3D Systems Corporation	UNITED STATES	1,133	na	69.5 x	27.3 x	na	na	74.6 x	na	na	62.9 x	2.1 x	1.9 x	1.8 x
Stratasys Ltd.	UNITED STATES	1,068	20.2 x	13.9 x	8.3 x	48.4 x	23.4 x	10.5 x	102.3 x	39.5 x	20.3 x	1.3 x	1.2 x	1.0 x
Materialise NV Sponsored ADR	BELGIUM	415	11.0 x	8.0 x	5.3 x	nm	nm	nm	54.0 x	63.8 x	18.5 x	1.2 x	1.1 x	0.9 x
Prodways Group SA	FRANCE	80	13.1 x	8.5 x	6.3 x	70.4 x	19.6 x	13.5 x	33.4 x	33.4 x	20.9 x	1.1 x	0.9 x	0.8 x
Dassault Systemes SA	FRANCE	55,220	25.2 x	22.2 x	19.5 x	27.6 x	24.1 x	21.1 x	34.5 x	31.6 x	28.6 x	9.0 x	8.0 x	7.2 x
ANSYS, Inc.	UNITED STATES	26,522	28.7 x	24.9 x	20.3 x	30.3 x	26.7 x	22.8 x	38.7 x	34.8 x	30.4 x	12.6 x	11.1 x	9.8 x
Descriptions ANA Taska alsons Discours	Average		19.6 x	24.5 x	14.5 x	44.2 x	23.4 x	28.5 x	52.6 x	40.6 x	30.3 x	4.6 x	4.0 x	3.6 x
Proprietary AM Technology Players	Median		20.2 x	18.0 x	13.9 x	39.4 x	23.8 x	21.1 x	38.7 x	34.8 x	24.7 x	1.7 x	1.6 x	1.4 x
Visiativ SA	FRANCE	149	6.1 x	5.4 x	4.4 x	8.5 x	7.2 x	6.1 x	10.4 x	9.1 x	8.8 x	0.7 x	0.6 x	0.5 x
CENIT AG	GERMANY	113	7.2 x	6.3 x	5.2 x	13.0 x	10.1 x	7.6 x	21.1 x	16.0 x	12.0 x	0.7 x	0.6 x	0.6 x
Infosys Limited	INDIA	59,924	13.4 x	11.9 x	10.8 x	15.2 x	13.5 x	12.2 x	20.4 x	18.2 x	16.5 x	3.2 x	2.9 x	2.6 x
CGI Inc. Class A	CANADA	20,010	12.0 x	11.0 x	10.4 x	14.7 x	13.4 x	12.0 x	19.2 x	17.6 x	15.8 x	2.4 x	2.2 x	2.0 x
Reply S.p.A.	ITALY	4,224	11.4 x	9.9 x	8.7 x	14.1 x	12.0 x	10.2 x	20.7 x	18.6 x	16.7 x	1.8 x	1.6 x	1.4 x
	Average		10.0 x	8.9 x	7.9 x	13.1 x	11.2 x	9.6 x	18.4 x	15.9 x	14.0 x	1.7 x	1.6 x	1.4 x
System Integrators with AM capabilities	Median		11.4 x	9.9 x	8.7 x	14.1 x	12.0 x	10.2 x	20.4 x	17.6 x	15.8 x	1.8 x	1.6 x	1.4 x

Source: Factset, Alantra



While we consider EV/EBITDA for system integration peers, we use EV/EBIT for producers of AM technology to better compare businesses with a different capex intensity. In both cases we look at 2025, when proprietary technology should start to play a major role in revenues generation and profitability.

#### Valuation (Eu mn), using peers' multiples

While we consider EV/EBITDA for system integration peers, we use EV/EBIT for producers of AM technology to better compare businesses with a different capex intensity

	Propriet	ary AM Tecl Players	hnology	System Integrators with AM capabilities			
Eu mn	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	
EBITDA	5.6	8.3	10.6	5.6	8.3	10.6	
EV/EBITDA Peer Group	20.2x	18.0x	13.9x	11.4x	9.9x	8.7x	
Premium (Discount)	0%	0%	0%	0%	0%	0%	
EV/EBITDA Peer Group after premium (discount)	20.2x	18.0x	13.9x	11.4x	9.9x	8.7x	
EV based on multiples	114.2	148.9	147.3	64.6	81.6	91.9	
Net Financial Position	(15.0)	(13.8)	(9.9)	(15.0)	(13.8)	(9.9)	
Adjustments	(3.9)	(4.6)	(5.3)	(3.9)	(4.6)	(5.3)	
Pre-money Equity Value on EV/EBITDA	95	131	132	46	63	77	
Eu mn	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	
EBIT	2.8	5.0	6.9	2.8	5.0	6.9	
EV/EBIT Peer Group	39.4x	23.8x	21.1x	14.1x	12.0x	10.2x	
Premium (Discount)	0%	0%	0%	0%	0%	0%	
EV/EBIT Peer Group after premium (discount)	39.4x	23.8x	21.1x	14.1x	12.0x	10.2x	
EV based on multiples	110.8	119.1	146.2	39.6	60.0	70.7	
Net Financial Position	(15.0)	(13.8)	(9.9)	(15.0)	(13.8)	(9.9)	
Adjustments	(3.9)	(4.6)	(5.3)	(3.9)	(4.6)	(5.3)	
Pre-money Equity Value on EV/EBIT	92	101	131	21	42	56	
Eu mn	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	
Net income	1.7	3.5	5.0	1.7	3.5	5.0	
PE Peer Group	38.7x	34.8x	24.7x	20.4x	17.6x	15.8x	
Premium (Discount)	0%	0%	0%	0%	0%	0%	
P/E Peer Group after premium (discount)	38.7x	34.8x	24.7x	20.4x	17.6x	15.8x	
Pre-money Equity Value on P/E	67	121	123	35	61	79	

Source: Alantra estimates

## Valuation based on DCF approach

The DCF approach can be a good alternative to a multiple valuation. However, to account for the still early stage of the bioprinting business, we look at a long-term DCF with 10 years of forecast window (from FY23E to FY32E). We assume an additional expansion CAPEX of ca. 2mn in 2026, and a margin expansion that should bring EBITDA around 16%. We derive a valuation of Eu6.6/share, consistent with the average of market multiples of the two peer groups. We have applied a terminal growth rate of 3.0%, reflecting the positive structural trends SolidWorld is exposed to. We use a high WACC of 12.4% to adjust for the risk of the new venture in bioprinting. We have made a sensitivity to terminal growth rate and cost of capital.

# ALANTRA Italian Equity Research

#### **DCF** Valuation

(Eu mn)			FY20A	FY21A	FY22A	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	FY32E	TV
Revenues				55.1	57.7	65.7	75.6	85.9	98.8	113.6	124.9	137.4	147.7	158.8	166.8	
EBITDA				4.1	4.1	5.6	8.3	10.6	13.2	16.0	18.1	20.4	22.6	24.9	26.8	27.6
taxes on EBIT				(1.5)	(1.1)	(0.6)	(1.0)	(1.4)	(1.7)	(2.1)	(2.4)	(2.7)	(3.0)	(3.3)	(3.5)	(5.3)
Non recurring Cash-out				0.0	0.0	0.0	0.0	0.0								
NWC Change				3.6	(4.6)	(3.4)	(2.8)	(1.7)	(1.9)	(2.2)	(2.4)	(2.6)	(2.8)	(3.1)	(3.2)	
Capex				(3.1)	(5.1)	(4.1)	(2.9)	(3.3)	(5.4)	(2.8)	(2.5)	(2.7)	(3.0)	(3.2)	(3.3)	(0.9)
Capex/Revenues				-5.7%	-8.8%	-6.3%	-3.9%	-3.9%	-5.5%	-2.5%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-1.0%
Free cash flow						(2.4)	1.5	4.2	4.1	8.9	10.8	12.4	13.8	15.4	16.8	228.2
Disc. Free Cash Flow						(2.3)	1.3	3.1	2.7	5.3	5.7	5.8	5.8	5.7	5.5	75.4
Year						0.50	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	9.5
Total Disc. FCF	38.7	34%						12.3%	13.3%	14.1%	14.5%	14.9%	15.3%	15.7%	16.1%	
Terminal value	75.4	66%														
NFP FY22A	(12.3)															
Adjustments	(3.4)															
TOTAL Equity Value	98.4															
# of shares (mn)	14.9															
Fair Value per share (Eu)	6.6															
Implied multiples					FY23E	FY24E	FY25E									
EV/ Adj. EBITDA					20.8 x	14.1 x	10.7 x									
EV/Adj. EBIT					41.7 x	23.3 x	16.4 x									
P/Adj. E					57.1 x	28.4 x	19.8 x									

Source: Alantra

#### Valuation with sensitivity based on DCF

				Wacc		
		10.3%	11.3%	12.3%	13.3%	14.3%
	1.50%	121.4	102.5	87.3	75.0	64.7
owth	1.75%	124.4	104.7	89.0	76.3	65.7
. 65	2.00%	127.5	107.0	90.8	77.6	66.8
erm	2.25%	130.9	109.5	92.6	79.0	67.9
	2.50%	134.4	112.1	94.6	80.5	69.1

Source: Alantra

## Market Dynamics & recent deals/agreements

Looking at recent market transactions and partnerships we can clearly see that there is a substantial activity in the industry. Despite not including previous transactions in our valuation, we can use them to crosscheck the multiples and DCF methods used. The merger of Stratasys and Desktop Metal, as well as the public tender offer of Nikon over SLM solutions are large, significant deals worth looking into for the purpose of understanding current market dynamics. In the first case, the transaction happened at a valuation range with lower-bound of 11.1x EV/EBITDA FY25 (using FY22 Net Debt adjusted for cost synergies to 2025) and an upper bound of 13.3x, in turn resulting in a per-share-value of SolidWorld between 6.9 Eu/Share and 8.5 Eu/Share, in line with the other valuation methodologies. In the second case (Nikon on SLM Solutions), we can estimate an implied EV/EBITDA 2024 multiple paid around 25x, even above the median of publicly traded proprietary AM technology peers.

Finally, it is worth mentioning that bioprinting technologies are getting momentum in the corporate world, as documented by the recent agreement signed by Aspect Biosystems and Novo Nordisk for the development of bioprinted tissue therapeutics for diabetes and obesity done in April 2023. The agreement establishes an initial payment by the latter to the former of Eu75mn, with subsequent payments which could cumulatively amount to Eu650mn, depending on the achievement of few milestones, in exchange with an exclusive and worldwide license conferred to Novo Nordisk for the use of the machine for research purposes involving diabetes and obesity.





#### Implied multiples from Stratasys merger with Desktop Metal

Source: Alantra



# Main risks

We believe that the main risks related to SolidWorld's business can be summarised in the following factors:

**Newness of Electrospider and challenging competitive bioprinting landscape**. The newly developed bioprinter has been patented, tested and put in production, with already orders coming in. However, the product has never been on the market before and thus no historical track record can be identified. Furthermore, the bioprinting market is a challenging environment considering that multiple incumbents have heavily invested in the development of their bioprinters and continue to do so to reach better performances. While it is true that these competitors have already proven solutions, we believe that 1) the testing phase done with potential clients by the group should be a reassuring factor on the capabilities and functionalities of the Electrospider, and 2) the bioprinter developed by the group (together with the University of Pisa) represents a substantial technological advancement from existing ones.

**Dependency on few, large software and hardware suppliers**. SolidWorld depends on few key suppliers (Stratasys, Dassault Systèmes,...). These are large manufacturers with a strong bargaining power, which could therefore decide to apply tougher conditions to its distribution network in the future. Furthermore, losing one of the top 2 suppliers could have significant consequences on the business. However, we believe that SolidWorld has extremely strong ties with its main suppliers. A proof of it are the multiple certifications awarded to the group from Dassault Systèmes and Stratasys, which attest the quality of the relationship among SolidWorld and its suppliers.

**Geographical concentration risk in Italy**. The group generates revenues almost entirely from Italy, therefore being entirely dependent on economic conditions and growth prospects of the Italian economy. To diversify away from Italy the group has opened a new subsidiary in Dubai to expand its activities in the UAE. Furthermore, new business connected to the development of turn-key, next gen smart factories as a contractor should also be targeting foreign clients.

**Increased specialization and competition from large system integrators**. As the 3D printing technology matures and the adoption becomes more widespread and well-known, large players could start building more specialised division to address the specific market (as Nuovamacut for TeamSystems). However, even in the case that this happens, we believe that a business fully focused on the matter (as SolidWorld) should continue to stand out from the crowd as the go-to-specialist for specific verticals. As a matter of fact, the group is increasingly targeting specific industries (automotive, aviation, space, biomedical, ...) building up a knowledge to be able to guide clients throughout their additive manufacturing journey in the best way possible.

Lack of track record in international expansion. Despite the intention of the company to expand its business in the UAE, the group has scarce experience dealing with Middle East countries. While this is true, the company has already some experience working in foreign countries, with few subsidiaries in Slovenia, Croatia and Bosnia Herzegovina. Furthermore, the target for the UAE to become a leading 3D printing technology hub by 2030 with focus on medical and consumer products is an encouraging factor for a successful expansion in the area.

**Dependency from two key people**. Roberto Rizzo (founder & CEO of SolidWorld) and Marco Calini (Deputy Chairman of the Board of Directors) have been the brains behind the group and continue to play key roles in the organization. While their possible departure from the company could have a strongly negative effect on the results of the group, we believe that their respective shareholding position (Roberto Rizzo at 36.6% and Marco Calini at 20.1%) are substantial deterrents.

**Challenging talent hiring and retention**. In order to offer best-of-breed solutions to clients, the group needs to attract and retain talents who have very specific skills related to the field of 3D printing applications. These people are hard to find and keep in the group, but we believe that SolidWorld is well positioned to do so thanks to its market leading positioning in Italy as well as its status of publicly listed company.



### SolidWorld – Revenue breakdown

Eu mn	FY20A	FY21A	FY22A	FY23E	FY24E	FY25E
Revenues by Business Line						
Software		35.3	37.5	42.4	47.7	53.4
YoY Growth			6.5%	13.0%	12.5%	12.0%
% net revenues		64.0%	65.0%	64.6%	63.1%	62.2%
Hardware excl. Bioprinter		18.2	18.5	20.3	22.2	23.9
YoY Growth			1.7%	10.0%	9.0%	8.0%
% net revenues		33.0%	32.0%	30.9%	29.3%	27.9%
Electrospider Bioprinter				1.0	3.5	6.0
YoY Growth					250.0%	71.4%
% net revenues				1.5%	4.6%	7.0%
Additive Manufacturing		1.5	1.7	2.0	2.2	2.5
YoY Growth			16.5%	15.0%	14.0%	13.0%
% net revenues		2.6%	2.9%	3.0%	2.9%	2.9%



## SolidWorld – P&L

		EV20A	EV21 A	EV22A	EV22E	EV24E	EV25E
Net revenues		48.6	55.1	57.7	65.7	75.6	85.9
	YoY Growth	10.0	13.4%	4.8%	13.8%	15.1%	13.6%
	Organic		13.4%	4.8%	13.8%	15.1%	13.6%
Change in WIP and Finished goods	V-V Cth	0.6	1.8	1.7	1.7	1.7	1.7
	YOY GIOWIN		224.9%	-3.9%	0.0%	0.0%	0.0%
Other revenues		0.9	1.3	1.3	1.3	1.3	1.3
	YoY Growth		53.1%	-2.7%	0.0%	0.0%	0.0%
Revenues	VoV Growth	50.0	58.2	60.8	68.7	78.6	88.9
	Oraanic		16.4%	4.4%	13.1%	14.4%	13.1%
Materials		(20.4)	(24.3)	(25.3)	(28.3)	(31.7)	(35.4)
	YoY Growth	40.00/	18.9%	4.1%	12.0%	12.2%	11.7%
	% total revenues	-40.8%	-41.7%	-41.6%	-41.2%	-40.4%	-39.9%
Services		(16.9)	(18.1)	(18.9)	(21.1)	(23.5)	(26.1)
	YoY Growth		6.9%	4.5%	11.6%	11.4%	11.2%
	% total revenues	-33.8%	-31.0%	-31.0%	-30.6%	-29.8%	-29.3%
		<i></i>			<i></i>		
Personnel Costs	VoV Growth	(8.4)	(9.6)	(10.2)	(11.3)	(12.6)	(14.0)
	% total revenues	-16.9%	-16.4%	-16.8%	-16.5%	-16.0%	-15.8%
						/0	
Third-party Services		(1.3)	(1.4)	(1.5)	(1.5)	(1.6)	(1.6)
	YoY Growth	2 701	4.6%	3.5%	4.0%	4.0%	1.8%
	% total revenues	-2.7%	-2.4%	-2.4%	-2.2%	-2.0%	-1.8%
Other Operating Costs		(0.7)	(1.1)	(1.0)	(0.9)	(1.0)	(1.2)
	YoY Growth	()	46.1%	-10.7%	-10.3%	15.7%	17.3%
	% total revenues	-1.5%	-1.9%	-1.6%	-1.3%	-1.3%	-1.3%
		(47.0)	(5.4.4)	(5.5.7)	(60.4)	(70.4)	(70.0)
Operating Costs	VoV Growth	(47.8)	(54.4)	(56.7)	(63.1)	(70.4)	(78.3)
	% total revenues	-95.7%	-93.4%	-93.4%	-91.8%	-89.5%	-88.1%
EBITDA Adj.		2.6	4.1	4.1	5.6	8.3	10.6
	YoY Growth	F 10/	59.2%	0.2%	37.9%	46.2%	28.2%
	% total revenues	5.1%	7.0%	0.7%	8.2%	10.5%	11.9%
EBITDA Adjustments		0.4	0.3	0.1			
EBITDA	VoV Crowth	2.2	3.8	4.0	5.6	8.3	10.6
	% total revenues	4.3%	6.6%	6.6%	40.3% 8.2%	40.2%	11.9%
	,					,-	
D&A		(1.6)	(1.9)	(2.1)	(2.5)	(2.9)	(3.2)
	YoY Growth		16.0%	13.6%	16.3%	14.4%	13.1%
	% total revenues	-3.3%	-3.2%	-3.5%	-3.6%	-3.6%	-3.6%
Provisions/Writedown		(0.2)	(0.8)	(0.5)	(0.3)	(0.4)	(0.4)
	YoY Growth	. ,	276.0%	-37.1%	-27.8%	14.4%	13.1%
	% total revenues	-0.4%	-1.3%	-0.8%	-0.5%	-0.5%	-0.5%
		0.7	1.4	4 5	2.0	5.0	<u> </u>
	YoY Growth	0.7	95.0%	2.3%	90.3%	78.3%	37.9%
	% total revenues	1.5%	2.5%	2.4%	4.1%	6.4%	7.8%
		<u> </u>					
EBIT Adjustments		0.4	0.3	0.1	0.0	0.0	0.0
EBIT		0.3	1.2	1.4	2.8	5.0	6.9
	YoY Growth		254.1%	18.8%	100.8%	78.3%	37.9%
	% total revenues	0.7%	2.0%	2.3%	4.1%	6.4%	7.8%
Not financial income (assta)		(0 A)	10.5	(0.0)	(0.6)	10.7	(0.7)
ret mancial income (costs)	YoY Growth	(0.4)	23.3%	49.0%	-21.5%	4.0%	0.5%
	% total revenues	-0.9%	-1.0%	-1.4%	-0.9%	-0.9%	-0.8%
Pre-tax profits	VeV Commit	(0.1)	0.6	0.6	2.2	4.3	6.2
	total revenues	-0.2%	1.1%	0.9%	213.1%	5.5%	43.6%
	70 COCG/ 1 CVC/10/C3	0.270	1.170	0.370	5.270	5.570	
Taxes		(0.3)	(0.8)	(0.5)	(0.4)	(0.9)	(1.2)
	tax rate %	255.2%	-125.4%	-80.1%	-20.0%	-20.0%	-20.0%
Minorities		(0.0)	(0.2)	(0.0)	(0.0)	(0.0)	(0.0)
	Pre-tax profits %	37,1%	-29.3%	-1.8%	-0.5%	-0,2%	-0.2%
				2.070			
Net Profit		(0.5)	(0.3)	0.1	1.7	3.5	5.0
	YoY Growth	0.000	-24.8%	-130.5%	1550.4%	101.0%	43.9%
	% total revenues	-0.9%	-0.6%	0.2%	2.5%	4.4%	5.6%
Restated Net_Profit		1.0	(0.4)	0.1	1.7	3.5	5.0
	YoY Growth		-141.2%	-129.2%	1339.2%	101.0%	43.9%
	% total revenues	2.0%	-0.7%	0.2%	2.5%	4.4%	5.6%



## SolidWorld – Balance Sheet

(Eu mn)		FY20A	FY21A	FY22A	FY23E	FY24E	FY25E
Inventory		2.8	2.7	2.6	6.4	8.4	9.5
	% total revenues	5.7%	4.7%	4.3%	9.3%	10.7%	10.7%
	DIO	21	17	16	35	40	40
Receivables		16.1	18.3	18.7	21.3	24.5	27.8
	% total revenues	32.2%	31.4%	30.8%	31.0%	31.2%	31.3%
	DSO	119	119	117	117	117	117
Payables		(11.2)	(12.4)	(12.5)	(14.7)	(16.0)	(17.9)
	% external costs incl. CAPEX	28.4%	27.6%	26.5%	27.4%	27.5%	27.5%
	DPO	102	93	87	95	95	95
Other current assets		5.0	3.0	3.5	4.0	4.4	5.0
	% total revenues	10.0%	5.2%	5.8%	5.8%	5.8%	5.8%
Other current liabilities		(7.0)	(9.1)	(9.4)	(10.6)	(12.2)	(13.8)
	% total revenues	-14.0%	-15.6%	-15.5%	-15.5%	-15.5%	-15.5%
Net Working capital		5.7	2.5	2.9	6.3	9.1	10.7
	% total revenues	11.5%	4.3%	4.8%	9.2%	11.6%	12.1%
		2.0	2.0		10.0	10.7	10 5
Property, plant and equipment		2.0	2.0	9.4	10.8	10.7	10.5
Right of Use Assets		7.0	0.7	11.4	0.0	0.0	0.0
Intangible assets		7.3	8.7	11.4	11.6	11.8	12.1
Financial consta	o/w goodwill	0.4	0.4	0.4	0.0	0.0	0.0
Financial assets		0.4	0.4	0.4	0.4	0.4	0.4
Others		5.0	7.4	0.8	0.8	0.8	0.8
Total fixed assets		12.8	18.5	21.9	23.6	23.7	23.8
% total revenues		25.6%	31.7%	36.1%	34.3%	30.1%	26.7%
		23.070	51.770	50.170	54.570	50.170	20.770
Employee pension benefits		(2.2)	(2.5)	(2.6)	(3.0)	(3.4)	(3.8)
Other liabilities (funds)		(0.5)	(1.2)	(1.4)	(1.5)	(1.8)	(2.0)
		· · ·	( )	~ /	· · · ·	~ /	· · /
Net Invested Capital		15.8	17.3	20.9	25.4	27.6	28.7
					0.0	0.0	0.0
Current Lease Liabilities					0.0	0.0	0.0
Non-Current Lease Liabilities			10.0		0.0	0.0	0.0
Short Term debts		11.1	13.3	8.2	8.2	8.2	8.2
Long Term debts		5.4	5.3	7.9	7.9	7.9	7.9
Short term credits		(0.1)	(0.3)	(0.6)	(0.6)	(0.6)	(0.6)
Net Debt (Cash)		(2.0)	(5.0)	(5.5) 12 3	(0.8)	(1.0)	(3.7)
		13.0	15.5	12.5	15.0	13.8	5.5
Share capital		0.7	0.7	12	1.2	12	1.2
Reserves		0.9	0.4	7.2	7.3	9.0	12.5
Net result		-0.5	-0.3	0.1	1.7	3.5	5.0
Minorities		1.1	1.3	0.2	0.2	0.2	0.2
Shareholders Equity		2.2	2.0	8.6	10.4	13.9	18.9
Source of Funds		15.8	17.3	20.9	25.4	27.6	28.7

# ALANTRA Italian Equity Research

### SolidWorld – Cash-flow statement

(Eu mn)		FY20A	FY21A	FY22A	FY23E	FY24E	FY25E
Net Profit before minorities			(0.2)	0.1	1.7	3.5	5.0
Interests			0.4	0.9	0.6	0.7	0.7
Taxes			0.8	0.5	0.4	0.9	1.2
Losses (gains) on disposal of fixed assets			0.1	0.2	0.0	0.0	0.0
Provisions/Writedowns			0.8	0.5	0.3	0.4	0.4
D&A			1.9	2.1	2.5	2.9	3.2
Change in net working capital			3.6	(4.6)	(3.4)	(2.8)	(1.7)
Interests paid			(0.4)	(0.9)	(0.6)	(0.7)	(0.7)
Taxes paid			0.5	(0.5)	(0.4)	(0.9)	(1.2)
Use of funds			0.8	0.3	0.2	0.3	0.2
Other operating items			(0.9)	(0.5)			
Cash flow from operating activities			7.5	(1.9)	1.4	4.2	7.2
Intangibles (CAPEX)			(2.9)	(4.4)	(2.1)	(2.4)	(2.7)
	% total revenues		-4.9%	-7.3%	-3.0%	-3.0%	-3.0%
Tangibles (CAPEX)			(0.3)	(0.6)	(2.1)	(0.6)	(0.7)
	% total revenues		-0.4%	-1.1%	-3.0%	-0.8%	-0.8%
Intangibles + Tangible			(3.1)	(5.1)	(4.1)	(2.9)	(3.3)
	% total revenues		-5.4%	-8.4%	-6.0%	-3.8%	-3.8%
Financials			(4.5)	(0.3)			
	% total revenues		-7.7%	-0.5%			
(Acquisitions) / Disposals			0.0	0.1			
	% total revenues		0.0%	0.2%			
Changes in Investments w/Equity Method							
	% total revenues		0.0%	0.0%			
Cash flow from investment activities			(7.6)	(5.3)	(4.1)	(2.9)	(3.3)
	% total revenues		-13.1%	-8.7%	-6.0%	-3.8%	-3.8%
Change in shareholders equity				6.1			
Dividends			(0.1)				
Other items			(1.5)	4.1	0.0	0.0	0.0
Change in NFP			(1.7)	3.1	(2.7)	1.2	3.9
NFP at year beginning			(13.6)	(15.3)	(12.3)	(15.0)	(13.8)
NFP at YE (debt)/cash		(13.6)	(15.3)	(12.3)	(15.0)	(13.8)	(9.9)



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