

# 1Spatial

## Spatial awareness

**1Spatial's transition plan appears to be on track. Recent contract wins, US trends and mobile solutions should both sustain growth and ensure it reaches profitability and positive free cash flow targets. In the longer term, its ambition to become a leading location master data management (LMDM) supplier has the potential to enhance both its competitive position and strategic value. Success is not guaranteed but we would argue that, trading at 1.3x FY21e EV/sales, nor is it factored into the valuation.**

Year end	Revenue (£m)	EBITDA* (£m)	PBT* (£m)	EPS* (p)	EV/Sales (x)	EV/EBITDA (x)	P/E (x)
01/18	16.9	0.4	(1.5)	(2.3)	1.5	64.7	N/A
01/19e	17.8	1.0	(1.0)	(1.2)	1.5	26.5	N/A
01/20e	18.8	1.7	0.5	0.4	1.4	15.7	73.3
01/21e	19.9	2.2	1.1	0.9	1.3	11.7	34.7

Note: \*EBITDA, PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

## Solid growth drivers: Mobile solutions and the US

1Spatial is increasingly focused on key verticals and solutions underpinned by its 1Integrate technology. Phase II of its transition plan – returning the business to growth and profitability – appears on track. The recent launch of mobile solutions opens up incremental subscription revenue opportunities and increases customer lock-in. US prospects also look exciting. Customer numbers doubled ytd vs the previous year and underlying revenues are up 75%. As US Census revenue stabilises, we see growth here boosting group performance.

## LMDM to create differentiation and strategic value

In Phase III management aims to leverage core IP to become a leading LMDM supplier. 1Integrate's customisable rules engine and open architecture allows clients to accurately integrate huge geospatial datasets from multiple sources with other enterprise data. The company has already proved the technology with clients and is now looking to make a fully productised version available on a SaaS basis.

## Growth to deliver profitability and positive FCF

We see steady revenue growth delivering positive EBITA by FY20e and free cash flow (FCF) by FY21e. Our estimates for FY19 are unchanged but are underpinned by recent contract momentum. For FY20e we assume revenue growth of 6%, and a similar level of absolute growth (£1m) in FY21e. LMDM success could drive an acceleration in (high-margin) growth toward the end of our forecast period.

## Valuation: Re-rating and LMDM could drive upside

Putting 1Spatial on a sector average FY21e EV/sales multiple of 2.2x (currently 1.3x) would imply a share price of 50p, 55% above the current price. Execution on the LMDM opportunity could create significant strategic value beyond even this level. However, it may take time to deliver this upside. A re-rating is likely to require lifting margins closer to the sector average and the full size of 1Spatial's LMDM opportunity is unlikely to become apparent in the next 12 months, in our view.

## Contract wins and outlook

### Software & comp services

22 January 2019

**Price** 32.3p

**Market cap** £32m

Net cash (£m) at FY19e 5.8

Shares in issue 99m

Free float 91%

Code SPA

Primary exchange AIM

Secondary exchange N/A

### Share price performance



% 1m 3m 12m

Abs (2.9) (14.1) (18.3)

Rel (local) (6.9) (13.2) (9.5)

52-week high/low 46.5p 28.0p

### Business description

1Spatial's core technology validates, rectifies and enhances customers' geospatial data. The combination of its software and advisory services reduces the need for costly manual checking and correcting of data.

### Next events

Trading statement March 2019

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## Investment summary

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### Correct positioning

1Spatial has accomplished much over the last year: divesting non-core assets, establishing a share incentive scheme and raising capital. It is increasingly focused on key verticals (government, utilities and transport) and solutions underpinned by its 1Integrate technology, which works with customers' existing platforms. More remains to be done to complete Phase II of its transition plan, but execution appears on track and recent contract wins (PRA and OS) are encouraging. This outlook note focuses on current growth drivers and 1Spatial's ambition (Phase III) to become a leading LMDM supplier. With customer numbers doubling in the year to date, vs previous year and underlying revenues up 75%, US prospects look particularly exciting and mobile solutions opens incremental revenue opportunities. LMDM has the potential to significantly enhance 1Spatial's competitive position and strategic value in the longer term. Success is not guaranteed but we would argue that, trading at 1.3x FY21e EV/sales revenue, nor is it factored into the share price.

### Growth initiatives: Mobile solutions and the US

Bringing the capability of 1Spatial's platform to mobile devices enables customers to correct and validate data at source, saving both time and money. November 2018 saw the soft launch of its first mobile solution with a lead customer (Northern Gas Networks) on Android; further platforms and client announcements are expected. We believe this initiative will open up new opportunities, boost customer lock-in and help differentiate the proposition. In the US, recent contract win momentum has been excellent. Stripping out the decline in the US Census contract and digitalisation, revenues are up 75% ytd vs the previous year. With multiple government agencies and states still to target and US Census revenues set to return to growth, prospects here look very encouraging.

### LMDM to create differentiation and strategic value

The proliferation of IoT (Internet of Things) sensors, LIDAR and 3D are generating huge spatial datasets in multiple formats. Delivering genuine business intelligence from this data requires LMDM: a single platform that integrates huge volumes of error-corrected data and combines it with data from other enterprise platforms. 1Spatial's strategic focus on LMDM leverages the key strengths of 1Integrate and ultimately aims to establish a leadership position that could accelerate growth, expand margins and create strategic value. The handful of customised projects delivered so far has proved the value of the technology – the company is now looking to make a productised version available on a SaaS basis. LMDM has the potential to define 1Spatial's long-term future, in our view.

### Financials: Growth to deliver break-even and positive FCF

Recent contract momentum should ensure a strong H2 and underpin our (unchanged) FY19e estimates. For FY20e, reflecting a tight hiring market and macro uncertainty, we assume revenue growth of 6% and profitability at the EBITA level (also unchanged). A similar level of absolute growth (£1m) in FY21e combined with an improving mix should ensure 1Spatial reaches positive FCF. If US, mobile solutions or LMDM initiatives go well, these forecasts could prove conservative.

### Valuation: Re-rating plus LMDM could drive significant upside

Putting 1Spatial on a sector average FY21e EV/sales multiple of 2.2x (currently 1.3x) would imply a share price of 50p, a 55% premium to the current price. Execution on the LMDM opportunity would highlight the strategic value of 1Integrate and the wider group and could justify upside beyond even this level. However, as a re-rating is likely to require raising margins and the size of the LMDM opportunity is unlikely to be fully established in the near term, delivering this upside may take time.

## Company description: Spatial awareness

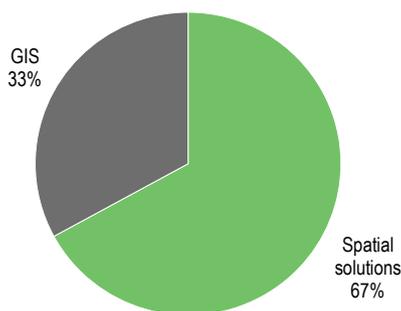
1Spatial provides technology-based solutions (software plus services) to companies seeking to manage geospatial data – information about where people and objects are. Its platform is particularly strong where data types are complex and volumes huge. As the number of connected sensors proliferates (IoT), large and increasingly rich geospatial datasets are being created. Coupled with the right software platform and analytical tools, this data can help organisations understand and efficiently manage their business. Aside from identifying where attributes such as assets, faults and customers are located, this data can reveal the reason for their distribution, and thereby provide useful ‘data-driven’ business insights.

1Spatial’s business includes a proprietary GIS (Geospatial Information System) in France and Belgium called Elyx, which enables users to manage geospatial data. However, in a tough market dominated by large incumbents such as Esri and Hexagon (acquirer of Intergraph), this platform struggled to scale. The company is therefore focused on solutions that integrate and enhance either its own Elyx or other GIS providers platforms including Esri.

The company’s strategy is now built around solutions in three main verticals (government, utilities and transport) and generally underpinned by 1Integrate. This technology enables users to capture large geospatial datasets in multiple formats, perform error-checks and integrate the data into existing third-party GIS systems. As the volume and sources of geospatial data proliferate, the ability to automate this process becomes increasingly valuable and 1Spatial has a genuine competitive advantage here. At the heart of its 1Integrate is an established, customisable rule set, which performs the error checking on the geospatial data. Including associated services and support activities, this technology accounts for over two-thirds of revenue and grew 23% in H119 (see Exhibit 1).

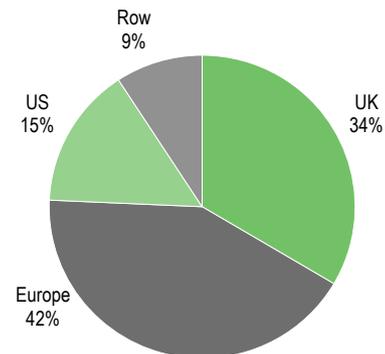
The company primarily operates in three regions (the UK, Europe [France and Belgium predominantly] and the US) and has a roster of enterprise customers including the US Census Bureau, National Grid, Ordnance Survey and United Utilities.

**Exhibit 1: Revenue mix H119**



Source: 1Spatial data

**Exhibit 2: Revenue mix FY18**



Source: 1Spatial data

Following an extensive strategic review in December 2016, a new management introduced a three-phase transition plan (see Exhibit 3). Phase I saw the company sharpen its strategic focus on commercialising its existing IP, begin selling multi-year contracts (vs one-off perpetual licences) and exit non-core activities (Avisen, Storage Fusion and Enables IT).

**Exhibit 3: 1Spatial's three-phase transition plan**

Phase	Action	Status
<b>Phase I – Complete</b>	New management team and refocused business on Geospatial	✓
Year 1: Dec-16 – Dec-17	Disposed of non-core businesses	✓
	Created profitable and cash-generative business at adjusted EBITDA level	✓
<b>Phase II – In progress</b>	Equity raised to strengthen BS + fund market-led technology development	✓
Year 2 & 3: Dec-17 – Dec-19	Share incentive plan for key management and employees	✓
	Grow revenues and be cash-generative	
	Continue solutions strategy of 'Land and Expand' in key sectors and geographies	
	Monetise and scale by developing market-led solutions (Mobile, 3D, LMDM)	
<b>Phase III</b>	LMDM – long-term move to complement existing business (SaaS platform)	
Year 3 onwards: Dec-19 onwards		
Goal	Long-term, sustainable earnings growth	

Source: Adapted from 1Spatial data

The company is mid-way through Phase II of this transition plan. Phase II projects already completed include establishing a share incentive plan for management and employees, and raising £8m of new equity in July 2018. As part of the increased client focus, 1Spatial introduced a 'land and expand' account strategy using PoC projects to establish the credibility of the technology with the client. The first benefits of this are emerging. A record level of orders have been signed during FY19 already (see Exhibit 4) and growth in the UK, 1Spatial's most established market, has been reinvigorated (sales grew 30% in H119 to £4.3m). The recently established US business, while only 15% of sales currently, is also performing well. Recurring sales now account for 40% of revenue.

**Exhibit 4: FY19 ytd customer wins**

Company	Sector	Country	Date	Length and nature	Minimum value
Major UK infrastructure provider	Transport	UK	PoC Oct 2017	Incl. LMDM PoC	£2.0m
SatCen	Gov. (utility)	Fr/Bel	PoC 2017	Software + services	€0.2m
Land and Property Services		UK		5yr licence + services	£1.6m
National Grid	Utility	US			\$0.05m
Northern Gas Networks	Utility	UK	PoC 2017	3 projects (inc. Mobile)	\$0.5m
NOAA	Gov. (research)	US	PoC Sep 2017	2yr licence + services	\$0.6m
East Bay Municipal Utility District	Utility	US		Services	\$0.05m
Rural Payments Agency	Gov. (research)	UK		Services	£0.5m
Google	Technology	US	PoC 2017	1yr licence + services	\$0.3m
Caltrans	Transport	US	PoC early 2018	licence + services	\$0.1m
Property Registration Authority (PRA)	Government	Ireland	Jan 2019	4yr licence + service	€0.9m
Ordnance Survey	Government	UK	Jan 2019	3yr framework contract	NA

Source: 1Spatial data, Edison Investment Research estimates

There are several outstanding items on the Phase II 'to do' list. 1Spatial's Elyx GIS business in France and Belgium is diluting the performance of the group. Our forecasts suggest the company will not be cash generative until FY21e.

While these outstanding tasks remain, execution is on track and, with the exception of cash generation, Phase II should be largely complete by the end of 2019 (FY20e). This outlook note focuses on the growth opportunity in the US, mobile solutions and the goal of becoming a leading LMDM supplier, all key parts of Phase II and III of this transition plan. It assesses the rationale for these initiatives and what a successful execution could deliver for investors.

## Adding mobile solutions

Bringing the capability of 1Spatial's software to client devices is potentially a key growth driver in our view. Historically its software has been deployed on the customer server and exclusively accessed via windows or desktop-based systems. However, over the last 18 months the company has worked with a lead customer (Northern Gas Networks) to develop client-based (tablet, mobile, desktop and web) applications to enable data collection 'in the field'. Enabling clients to correct and

validate data at source is potentially much more efficient. Asset data can be properly validated with all the required attributes added (eg construction, age, type) and any conflicts with pre-existing information reconciled on site via access to 1Spatial's rules engine. Getting it right first time can save an organisation time and improve the quality of the database.

1Spatial soft launched version one of its client solution at its 'Smarter Data Smarter World' conference in November 2018 with a live demonstration of the software development kit (SDK) called LMAP (Location Mobile Application Platform) plus first mobile app (a 'loss of supply' application) developed with Northern Gas Networks. It expects further paid for PoCs will be the main route to market over the next 12 months and will initially focus on utility customers before broadening to other sectors. The current solution is based on Android, but iOS and Windows based solutions are also expected.

If successful, this client strategy should help differentiate 1Spatial's proposition. It further monetises its existing geospatial IP to open up new revenue opportunities at existing clients (part of the 'land and expand' initiative) and increase customer lock-in. 1Spatial intends to license its technology to client devices on a per user per annum basis, with a modular-based pricing based on the number and complexity of functions used. With the SDK only just launched and one customer, it is too early to predict the commercial impact, but the company describes customer interest as very strong.

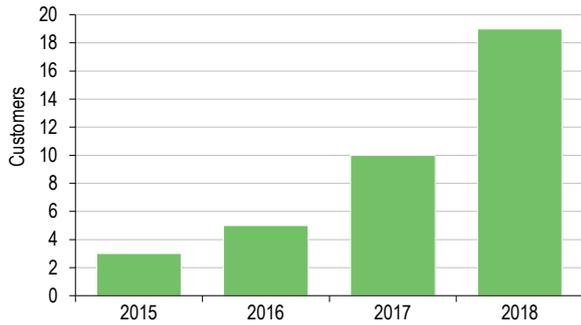
## The US opportunity

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The US is a large and relatively untapped opportunity for 1Spatial in our view. Since 2015 the number of major US clients has nearly doubled every year, with nine added in the first half of CY18 alone (see Exhibit 5). Many of these wins have been government agencies (both state and federal). The Federal US Census contract helped establish 1Spatial's credibility initially and the agency has since become a powerful advocate of the platform. 1Spatial has been particularly successful with agencies working for the Department of Transport (DoT). In 2018 the company secured a \$0.5m contract with the Federal Highways Administration (FHWA) to modernise its Highway Performance Monitoring System (HMPS). This requires an LMDM-type solution (see pages 6-8): a platform capable of ingesting and validating data from 50 state DoTs for highway performance monitoring (eg surface condition). 1Integrate's ability to combine linear referencing systems (LRS) data and non-spatial attributes as well as the ability to customise the rule set without programming knowledge were differentiators in securing this contract.

This Federal DoT contract is spurring state-by-state adoption. 1Spatial's contract with Kansas DoT highlights its 'land and expand' strategy in action. In 2017 it secured a small contract to provide training on 1Integrate embedded in Esri's ArcGIS. This was followed up with a substantially larger (c \$100k) consultancy sale in 2018 and it anticipates selling a full 1Integrate licence shortly. Customer testimony for this project is particularly glowing. The GIS manager at Kansas DoT described 1Integrate as 'stuff I thought was impossible until I learned 1Spatial and got help from the experts'. Exhibit 6 highlights the current extent of 1Spatial's penetration of government customers by state. In each state there are potentially multiple government agencies with potential need for the technology. 1Spatial has the opportunity to grow its US government business in three ways: 1) 'land and expand' – selling more to existing customers, 2) by adding new agencies in the same state, and 3) by targeting new states.

**Exhibit 5: Growth in US clients**



Source: 1Spatial data

**Exhibit 6: State and local government customers**



Source: 1Spatial data

1Spatial is also beginning to have some success outside of the government sector in the US. The company has two utility customers (National Grid and East Bay Municipal District). Following a PoC with Google Real Estate Worldwide Services in 2017 to provide computer-aided design (CAD) validation, it recently signed a contract to provide a one-year subscription licence plus services for \$0.3m.

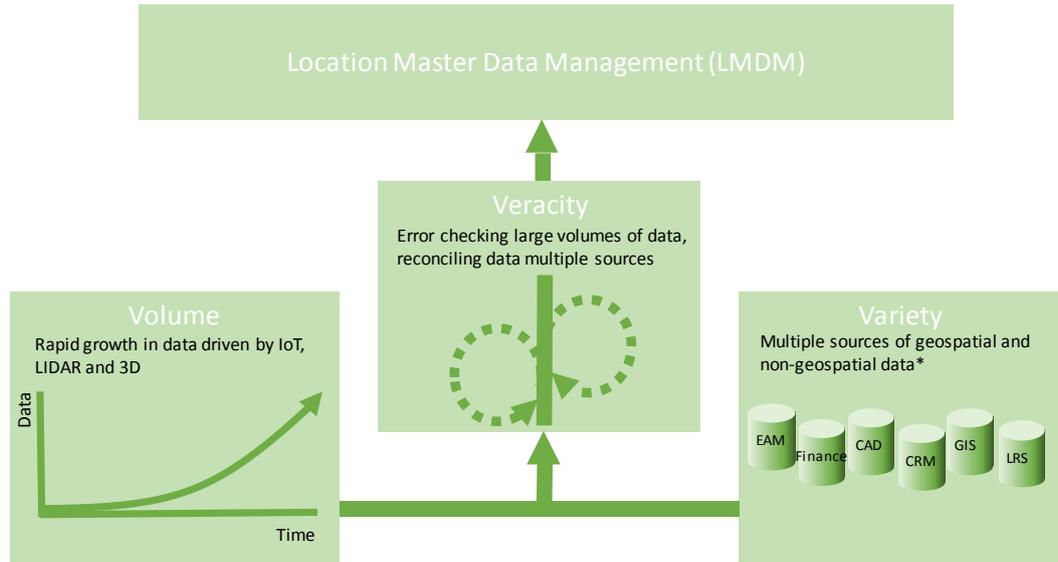
Unfortunately, the boost to financial performance provided by these customer wins has been obscured by a fall in revenues from its large US Census contract. US Census revenues have fallen from a c £0.8m run-rate to c £0.15m in FY19. However, they should begin ramping up again in FY20 and stripping out this decline underlying y-o-y growth is c 75%. Given much of this growth is coming from recurring, high-margin software sales the long-term prospects for the US look encouraging.

We believe 1Spatial has the potential to more than double its US customer base again in FY20. Further investment in headcount will be required. Currently the US employs just over 20 staff; additional sales resources are needed to address underserved regions. Nevertheless, alongside the LMDM and mobile solution initiatives, we believe the US has the potential to transform 1Spatial’s financial performance in the long term. We do not forecast its growth explicitly, but given this potential and the overall group single-digit growth forecast, further strong growth could drive upside to our forecasts.

## The LMDM opportunity

The proliferation of IoT sensors, LIDAR and 3D (among other technologies) is generating huge and growing spatial datasets in multiple formats. Delivering genuine business intelligence from all this data requires LMDM: a single platform capable of integrating error-checked spatial data from multiple sources and combining it with data from other enterprise platforms. In 1Spatial’s terms, LMDM solves the challenges posed by the three ‘Vs’: variety, veracity and volume (see Exhibit 7).

**Exhibit 7: The LMDM concept**



Source: Adapted from company presentations. Note: \*EAM = enterprise asset management, CRM = customer relationship management.

## Veracity of data

1Spatial's goal to become a leading player in LMDM aims to capitalise on the core IP within its 1Integrate platform. The geospatial rules engine at the heart of 1Integrate enables processes like merging data and error correction to be automated and repeatable, thereby guaranteeing a consistent quality. Spatial data often requires significant error correction before it can be used.

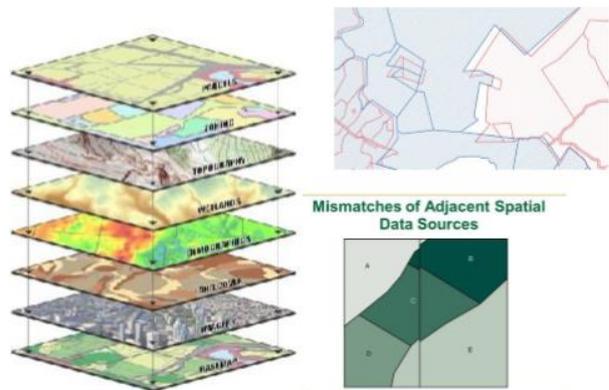
1Spatial's work for Sinfogeo, a consultancy tasked by the Spanish government to integrate and harmonise two differing geospatial datasets for all 50 provinces in Spain, demonstrates the value of this capability. Overlaying the two datasets created conflicting information (see Exhibit 8 and 9). Correcting these manually would be extremely time consuming. User-customisable rules enable the process to be tailored while ensuring the data is reconciled objectively and consistently.

**Exhibit 8: Errors from overlaying datasets**



Source: 1Spatial

**Exhibit 9: Multiple datasets and layers create errors**



Source: 1Spatial

## Variety of data

1Integrate not only helps correct spatial data but can also correct data in different formats using the same rule set. Vector data (eg line, node, polygon) are stored in dedicated GIS databases such as ESRI's ArcGIS or Integraph's G/Technology. Unlike traditional relational databases, GISs are

optimised to understand how objects interrelate spatially, for example how many schools are in an administrative region or how many houses are near a river. However, there are often spatial attributes to data stored in other formats within any organisation, such as CAD programmes or LRS. The ability to access, incorporate and reconcile multiple data formats is crucial to maximising the value of all the spatial data a company holds. 1Spatial is working with Google to clean and integrate CAD real-estate data and recently added the capability to work with both CAD and LRS data to its 1Integrate platform.

Crucially 1Integrate can also bring in non-geospatial data from other enterprise databases. The open architecture of its platform enables it to access other enterprise databases such as customer relationship management or billing platforms. Analytical tools can then identify relationships between spatial data and other business metrics. 1Spatial believes that the ability to combine spatial and non-spatial data substantially enhances the value of the spatial data.

## Volume of data

Finally, these error-checking and integration functions must cope with large, rapidly expanding datasets. The proliferation of IoT sensors across infrastructure, transport, agriculture, building and consumer applications is still in its infancy but is already generating huge datasets capable of being analysed spatially. LIDAR systems that use pulses of light to map both the distance and composition of objects, generate huge 'point cloud' datasets that are difficult to store and process. There is growing demand to use 3D datasets to analyse spatial variation both within buildings and the complex below ground environments in urban areas. 1Integrate has been investing in R&D to extend its credibility in this area and expects to develop its first 3D PoC soon. The US Census contract also highlights 1Spatial's ability to deal with huge volumes: it requires integrating geospatial and personal data from across the US stored on 3,500 separate databases.

## Assessing the potential opportunity

1Spatial's focus on LMDM aims to capitalise on the core IP within 1Integrate to create a product that generates genuine business intelligence for its customers. To date it has delivered just a handful of LMDM projects. The US Census and FHWA contracts highlight 1Spatial's ability to deal with huge volumes and multiple datasets (see page 6). In the UK it began working on an LMDM PoC with a 'major UK infrastructure provider' in October 2017. This contract has subsequently expanded to include 16 databases, a good example of 1Spatial's 'land and expand' strategy. Work with a utility customer highlights the value LMDM can bring to 1Spatial's clients. To enhance operational efficiency, a utility customer installed thousands of sensors (IoT) to improve leak detection. However, using the data to generate a more efficient maintenance schedule requires integration with asset databases (age, material etc) and transport databases. Currently, 1Spatial has been delivering LMDM as tailored projects for specific customers and it has proved that the technology works. The challenge now is developing a more standardised LMDM platform that can be deployed more widely across the customer base.

Aside from the value it creates for customers, a focus on LMDM should also create value for shareholders. The precise size of the opportunity is not yet clear. Transparency Market Research estimates the overall Master Data Management Market was worth \$3.8bn in 2017 and is expected to grow at a 27% CAGR to reach \$21bn by 2024; LMDM is a segment within this market. Adding CAD and LRS data expands 1Spatial's addressable market to the real estate, infrastructure and transport sectors. Crucially LMDM also accentuates 1Spatial's differentiation versus larger competitors in our view. The 'major UK infrastructure provider' contract was secured against much larger MDM and GIS competitors. Greater competitive differentiation could drive faster growth, higher margins and create strategic value. All these benefits are difficult to quantify but support our view that LMDM has the potential to define 1Spatial's long-term success.

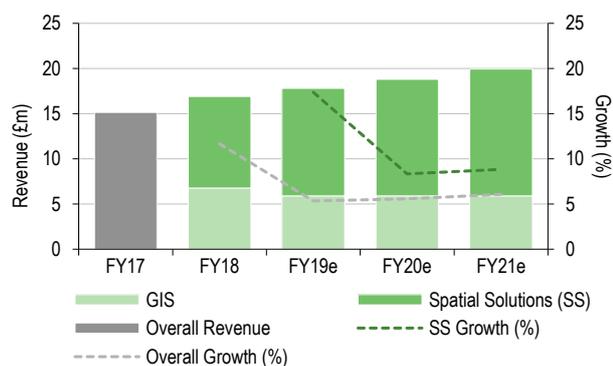
## Financials

Our forecasts assume 1Spatial adds c £1m of incremental organic revenue annually between FY18 and FY21, implying a 6% revenue CAGR. The pace of overall growth is determined by the balance of trends in the two disclosed business segments:

- Spatial Solutions (67% of H119 sales). This includes 1Integrate, 1Edit, 1SMS and associated services and support activities. Revenues grew 22% y-o-y in H119, driven primarily by an excellent performance in the UK business (up 30% y-o-y).
- GIS (33% of H119 sales). This includes Elyx, a GIS business mainly sold in France and Belgium. Sales fell 24% y-o-y in H119 due to a non-recurring payment in the prior period.

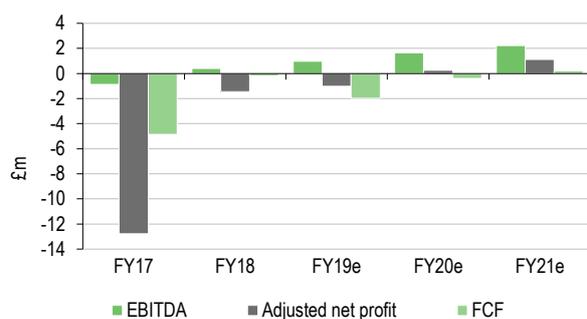
As this note highlights, the prospects for Spatial Solutions appear encouraging. Following strong sales activity in H119, the company indicated the order book/pipeline already stood at record levels entering the H2 and significant additional orders have since been signed (see Exhibit 4). With some of these deals expected to become revenue generating in H2, our forecast assumption appears conservative, assuming no h-o-h increase in revenues and y-o-y growth in Spatial Solutions halving to 12%. We assume this business sustains a high single-digit CAGR through our forecast period.

**Exhibit 10: Revenue growth by segment**



Source: 1Spatial data, Edison Investment Research

**Exhibit 11: EBITDA, adjusted net profit and FCF**



Source: 1Spatial data, Edison Investment Research

In contrast, prospects in the GIS market are more challenging. It believes it can maintain revenues at the current level by developing strategic partnerships. We assume zero growth in this business line over our forecast period.

As the relatively high-margin Spatial Solutions becomes a higher proportion of revenues, we would expect, all else being equal, for gross margin to drift up. The incremental revenues should also leverage a largely static operational cost base. Our FY19e EBITDA forecast implies 67% of incremental revenue reaching the EBITDA line and the ratio is similar in FY20e and FY21e. We forecast 1Spatial reaching profitability in FY20e and EBITDA margins reaching 11% in FY21e.

## Cash flow and balance sheet

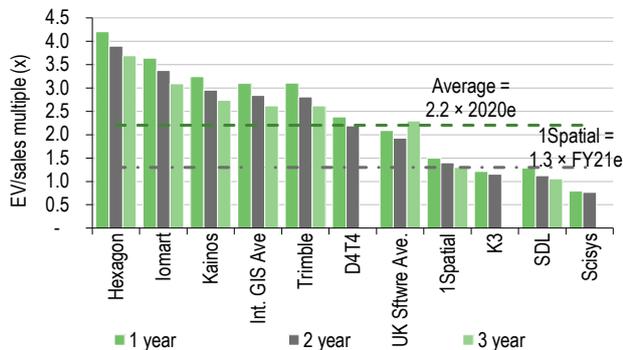
We raise our FY20e and FY21e capex forecasts by c £1m to reflect increasing levels of investment in the platform. This pushes out the company turning FCF positive to FY21e.

## Valuation

At 32p 1Spatial trades at 1.3x FY21e EV/sales, a 30% discount to UK small cap software peers and 50% discount to international GIS peers such as Hexagon and Trimble (see Exhibit 12). With growth in line with the sector, this discount is likely to reflect 1Spatial's relatively modest margins; reaching 11% in FY21e, EBITDA margins are substantially below both its nearest UK and

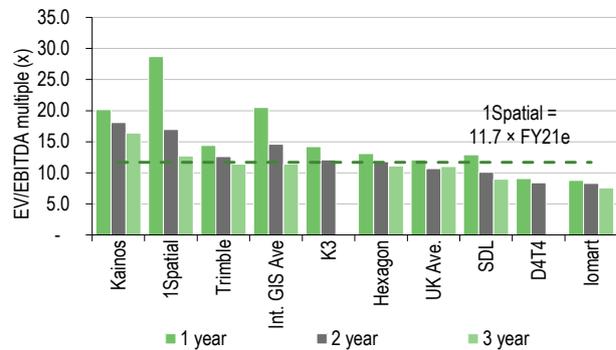
international peers. On an EV/EBITDA basis, 1Spatial trades at 11.7x FY21e on our estimates, marginally above UK small cap software and international GIS peers (11.0–11.5x).

**Exhibit 12: EV/sales multiples vs peers**



Source: Thompson Eikon

**Exhibit 13: EV/EBITDA multiples vs peers**



Source: Thompson Eikon

Taking into account the EV/EBITDA rating, closing the sales multiple discount could take time. If the company can continue to execute well, delivering both strong (+5% y-o-y) growth and operational gearing, confidence should increase that EBITDA margins can ultimately reach 20%, closer to the peer group. A sector average FY21e EV/sales multiple of 2.2x would imply a share price of 50p, a 55% premium to the current price. If the company can establish a leadership position in LMDM, a further re-rating is also possible.

## Sensitivities

- Quantifying the long-term potential.** In this note we describe what we consider the three potentially most significant opportunities in front of the company today. Successful execution on one or more of these opportunities has the potential to transform the financial profile of the company in our view; however, it is difficult to quantify the size of these opportunities or predict how long they will take to materialise. Equally, focusing investment in these areas may underplay the weak performance in other parts of the portfolio. As a result, our forecasts reflect relatively modest growth rates consistent with historic performance; actual growth could be slower or faster depending on how long these opportunities take to materialise. Due to the modest level of profitability at present, flexing the long-term growth rate assumption by just 1% affects a DCF driven valuation by 7%.
- Short-term deal-flow visibility and effect on financials.** While the stated aim of the company's strategy is to improve visibility by increasingly signing multi-year contracts with renewable revenue components, only 40% of revenues are generated from these deals. Predicting the timing of one-off contracts with large upfront revenue components is particularly perilous. Revenue recognition is also being affected by the adoption of IFRS 15. A shortfall or boost of £1m in high margin ( $\pm 5\%$  of FY20e) one-off licence sales could affect EBITDA by as much as £0.8m. Given the relatively modest level of profitability of the company in FY20e, this has a disproportionately large (50%) impact on EBITDA.
- Currency.** 1Spatial reports in sterling (GBP) and has a predominantly GBP cost base; however, in FY18 only 33% of revenues came from the UK-domiciled companies. Over 42% of revenues are from Europe and 15% from the US. Assuming 80% of costs are in GBP, a 5pp devaluation of GBP would boost our FY20e EBITDA estimate by c 40%.

**Exhibit 14: Financial summary**

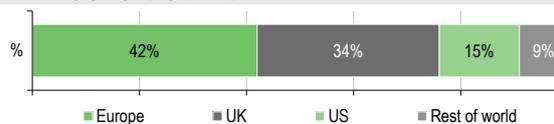
	£000s	2016	2017	2018	2019e	2020e	2021e
Year end 31 January		IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
<b>PROFIT &amp; LOSS</b>							
Revenue		18,300	15,133	16,938	17,800	18,793	19,933
Delivery costs		(7,715)	(6,868)	(7,994)	(8,090)	(8,179)	(8,571)
Gross Profit		10,585	8,265	8,944	9,710	10,614	11,363
EBITDA		2,902	(874)	403	985	1,661	2,230
Operating Profit (before amort. and except.)		1,584	(12,494)	(1,302)	(846)	319	1,058
Acquired Intangible Amortisation		(200)	0	0	0	0	0
Exceptionals		(1,081)	(2,590)	(1,041)	(300)	0	0
Share based payments		(976)	(566)	538	(250)	(250)	(250)
Operating Profit		(673)	(15,650)	(1,805)	(1,396)	69	808
Net Interest		(27)	(25)	(151)	(161)	163	23
Other		(421)	(266)	0	0	0	0
Profit Before Tax (norm)		1,136	(12,785)	(1,453)	(1,007)	481	1,080
Profit Before Tax (FRS 3)		(1,121)	(15,941)	(1,956)	(1,557)	232	831
Tax		503	1,081	753	405	(46)	(166)
Profit After Tax (norm)		1,136	(12,785)	(1,453)	(1,007)	481	1,080
Profit After Tax (FRS 3)		(618)	(14,860)	(1,203)	(1,152)	185	665
Average Number of Shares Outstanding (m)		691.3	728.9	63.3	87.4	98.7	98.7
EPS – normalised (p)		0.16	(1.75)	(2.30)	(1.15)	0.44	0.93
EPS – normalised fully diluted (p)		0.16	(1.75)	(2.30)	(1.15)	0.44	0.93
EPS – (IFRS) (p)		(0.09)	(2.04)	(1.90)	(1.32)	0.19	0.67
Dividend per share (p)		0.0	0.0	0.0	0.0	0.0	0.0
Gross Margin (%)		57.8	54.6	52.8	54.6	56.5	57.0
EBITDA Margin (%)		15.9	N/A	2.4	5.5	8.8	11.2
Operating Margin (before GW and except.) (%)		8.7	N/A	N/A	N/A	1.7	5.3
<b>BALANCE SHEET</b>							
Fixed Assets		22,115	13,025	10,873	10,659	11,585	12,642
Intangible Assets		18,900	11,968	10,540	10,540	11,466	12,523
Tangible Assets		1,638	1,057	333	119	119	119
Investments		1,577	0	0	0	0	0
Current Assets		16,202	11,442	7,050	12,820	12,960	13,469
Stocks		0	0	0	0	0	0
Debtors		10,815	8,929	5,510	5,790	6,113	6,484
Cash		4,996	1,966	1,319	6,809	6,625	6,763
Other		391	547	221	221	221	221
Current Liabilities		(11,071)	(13,029)	(10,234)	(8,692)	(9,108)	(9,586)
Creditors & other		(11,071)	(12,348)	(9,183)	(7,641)	(8,057)	(8,535)
Short term borrowings		0	(681)	(1,051)	(1,051)	(1,051)	(1,051)
Long Term Liabilities		(1,579)	(1,535)	(899)	(899)	(899)	(899)
Long term borrowings		0	0	0	0	0	0
Other long term liabilities		(1,579)	(1,535)	(899)	(899)	(899)	(899)
Net Assets		25,667	9,903	6,790	13,888	14,537	15,625
<b>CASH FLOW</b>							
Operating Cash Flow		(722)	(1,061)	245	(1,137)	1,917	2,361
Net Interest		(31)	(166)	(167)	(161)	163	27
Tax		55	425	751	405	(46)	(167)
Capex		(3,800)	(4,042)	(1,035)	(1,617)	(2,217)	(2,018)
Acquisitions/disposals		(1,033)	(900)	115	0	0	0
Financing		1,940	896	0	8,000	0	0
Dividends		0	0	0	0	0	0
Net Cash Flow		(3,342)	(4,848)	(91)	5,490	(184)	208
Opening net debt/(cash)		(8,250)	(4,996)	(604)	(268)	(5,758)	(5,574)
HP finance leases initiated		0	0	0	0	0	0
Other		88	456	(245)	0	0	0
Closing net debt/(cash)		(4,996)	(604)	(268)	(5,758)	(5,574)	(5,782)

Source: 1Spatial accounts, Edison Investment Research forecasts

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#### Revenue by geography (FY18)



#### Management team

##### Non-executive chairman: Andrew Roberts

Andrew joined the board in September 2016 and was executive chairman from 30 December 2016 until 31 January 2018 when he became non-executive chairman. Andrew brings significant experience to 1Spatial from both a technology and equity capital markets perspective. He led the Innovation Group from 2009 until its sale to Carlyle Group in 2016 for £500m and was also chairman of Kewill, non-executive director and chairman of Civica and non-executive chairman of Vega Group until its sale in 2008 to Finmeccanica. Andrew started his career at ICL and then led the management team that turned around private-equity owned Data Sciences, which was sold to IBM in 1996.

##### Financial director: Nicole Payne

Nicole joined the Board in March 2017 as finance director and was made CFO in October 2017. She was previously group financial accountant, having joined 1Spatial in January 2015. Prior to joining 1Spatial, Nicole previously worked at Broadcom Europe, prior to which she trained and qualified with Deloitte.

##### Non-executive director: Peter Massey

Peter joined the board in July 2018 and brings significant industry expertise and strategic insight in the areas of government, utility and transport. He has held a number of senior executive positions during his career, including at Space Time Insight, National Grid and Transco. In his current roles of business development director at On Device Solutions, and founder and MD at Upcurve, he helps organisations enhance performance and growth. Peter is a chartered engineer and graduated from the University of Salford with a BSc (Hons) in Natural Gas Engineering.

##### CEO: Claire Milverton

Claire joined the board in 2010 and was previously chief financial officer until October 2017 when she was made CEO (having been acting CEO from December 2016). Prior to joining the board of 1Spatial, Claire was group financial controller at Xploite, an AIM-listed company acquired by 1Spatial in 2010. Claire joined Xploite, having previously been a senior manager at PwC. She has had a significant number of years of experience in both the AIM-listed environment and the technology sector with both her time working at 1Spatial and Xploite and also through her experience at PwC where she was a technology and AIM specialist.

##### Non-executive director: Francis Small

Francis joined the board in August 2017 and brings significant experience from his financial services background, having been at Ernst & Young from 1979 to 2015 where he held key positions, including as London and then UK head of corporate finance, global vice chair and then managing partner of UK & Europe transaction advisory services, global leader of sovereign wealth funds (based in the Middle East) and ultimately senior partner for international clients. During his time at Ernst & Young, Francis held responsibility for various teams and divisions, overseeing strategy and identifying growth opportunities, while delivering revenue growth and working with notable businesses including Rexam, ArcelorMittal and TPG. Since leaving Ernst & Young, Francis sits on the strategy & performance committee and chair of finance at Kingston University, and on the investment committee and chair of audit & risk at British Business Bank Investments. Francis graduated from Cambridge University with a degree in law, and is a chartered accountant and a fellow of the ICAEW.

#### Principal shareholders

	(%)
Columbia Threadneedle	15.4
Hargreave Hale	14.0
Azini Capital	12.5
JO Hambro	11.0
Legal & General	9.7
Old Mutual	5.2
Harwood Capital	4.6
Herald Investment Management	4.0

#### Companies named in this report

Hexagon AB (HEXAB.SS), Trimble Inc (TRMB.US), D4T4 Solutions (D4T4.LN), Kainos Group (KNOS.LN), IDOX (IDOX.LN), K3 Business Tech (KBT.LN), SDL (SDL.LN), SCISYS (SSY.LN), iomart Group (IOM.LN)

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