EDISON

Scale research report - Initiation

Max 21

Restructured for growth

Max 21 has almost completed a double repositioning. It has slimmed down to two core businesses and, in turn, they have been refocused on scalable business models generating recurring streams of service revenue. Both businesses are placed in segments with good growth prospects: Binect in hybrid business communication and KeyIdentity in multi-factor authentication security.

Huge, untouched market for hybrid communication

Binect, currently the larger of the two subsidiaries, provides a range of systems with which enterprises can digitalise postal business mail. Max 21 puts the potential addressable market in Germany at 6-8bn letters annually compared to the 100m that it is currently processing. Take-up of Binect systems has met expectations, but usage (the key source of revenue) is still lagging.

First major commercial licence MFA client signed in H117

KeyIdentity provides multi-factor authentication (MFA) IT security systems for secure access, portals and transactions. The systems combine physical tokens and one-time pass codes. KeyIdentity's LinOTP has been widely adopted as an open-source product with 261 users, and ThyssenKrupp contracted to use KeyIdentity's proprietary modules in H117. It is currently addressing international markets via a value-added reseller, but may seek a closer form of partnership arrangement.

Both subsidiaries should reach break-even in 2018

Slow contract acquisition at KeyIdentity and low per-item usage at Binect mean that both subsidiaries are in the red, with losses of €3.3m at the EBT level in H117. Trends in recurring revenues are more encouraging, especially at KeyIdentity, which Max 21 expects to break even in H218. Cost reductions offer the prospect of break-even at Binect in Q118. A share issue brought in €4.3m in H117, leaving Max 21 with manageable net borrowings, but further financing may be required.

Valuation: Multiple uncertainties

Lack of profits and consensus forecasts hamper any comparative valuation. Reported NAV is €1.57/share, but intangibles and tax losses, whose value depends on future profitability, account for 90% of total assets. The possibility of another capital increase adds a further layer of uncertainty.

Historical financials

Year end	Revenue (€000s)	PBT (€000s)	EPS (€)	DPS (€)	P/E (x)	Yield (%)
06/14	469	(298)	N/S	0.0	N/A	N/A
06/15	568	(586)	N/S	0.0	N/A	N/A
12/15*	3,308	(1,916)	(0.16)	0.0	N/A	N/A
12/16	6,391	(7,288)	(0.52)	0.0	N/A	N/A

Source: Max 21. Note: *Year end changed.

Technology

03 November 2017

Price	**€1.62**
Market cap	**€26m**

Share price graph

Share details

Code	MA1
Listing	Deutsche Börse Scale
Shares in issue	16.1m
Last reported net debt as at June 2017	€0.56m

Business description

Max 21 is a technology investment company with 100% stakes in two core subsidiaries: Binect in hybrid business communication and KeyIdentity in IT security.

Bull

- Surface of hybrid business communication market barely scratched.
- IT security market growth driven by multiple threats.
- Highly scalable recurring revenue model for both businesses.

Bear

- Break-even deferred.
- Long sales cycles.
- Extra financing may be required.

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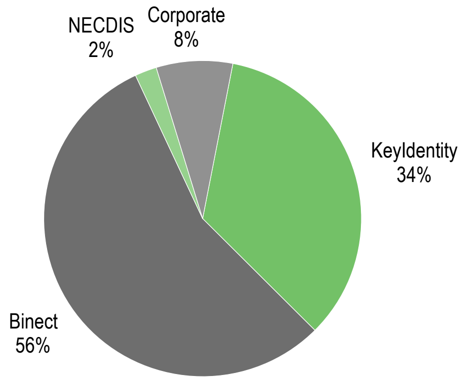
Company description: Focused technology investment

Max 21 was founded in 2004 and has been listed since 2006. However, it has undergone immense changes since 2015 and only since last year has it acquired its current form, management and ownership. To begin with, Max 21 had holdings in around a dozen companies, which were in turn often poorly focused in their own right. The bulk of these investments have been disposed of. Practically the only legacy of its previous incarnation is its balance sheet and a couple of insignificant investments. Its current material activities consist of full ownership of two subsidiaries, each active in an entirely different area of technology: Binect, in digital communication, and KeyIdentity, in IT security.

Exhibit 1: Headcount by segment



Source: Max 21

Not merely has the group been totally restructured, but the businesses of its two ongoing subsidiaries have also been transformed. In both cases, they had developed technically successful products but these had not been fully monetised. They are now both focused on scalable, proprietary products, marketed so as to generate a stream of recurring revenue. The addressable market for both subsidiaries embraces enterprises across the size spectrum. Their business models have migrated from a heavy technology focus to a clear focus on sales and distribution. This has been implemented by extensive changes in personnel. Each subsidiary now has a range of sales channels calibrated to different customer bases.

Reshaping the subsidiaries involved heavy one-off costs. Both subsidiaries are on their way to break-even and cash generation, but this reflects their point in the development cycle and not flaws in their operations or structures.

Max 21 reports on a consolidated accounting basis but each of the subsidiaries is entirely separate and operates independently; they are only related by common ownership. Thus, we will address their operations quite distinctly. They are very roughly comparable in size but their potential growth trajectories and recurring revenue models show wide variations.

Management

The transformation of Max 21 has been driven by its sole executive director, Nils Manegold, who has been in place as CEO and COO since July 2016. Two of the three supervisory board members are similarly fresh: Götz Mäuser joined at the same time as the CEO's appointment and Lars Ahns was appointed from September 2017. By contrast, Oliver Michel, the supervisory board chair, was one of the company's founders.

Unusually for a company of Max 21's size, the free float is large at 74.6%. Management and supervisory board hold the remaining 25.4%. In November 2015, the only major shareholder reported was a private company with 8.83%, which suggests that the newly arrived management has invested in the company.

The management of the operational subsidiaries has also been entirely renewed. The CEO of Binect in hybrid postal communication has been in place since September 2016. The two top managers of KeyIdentity in digital security were also appointed in 2016, the CEO in April and the COO in August.

Binect

Business model and opportunity

Binect addresses the vast market for the migration of traditional, legacy forms of postal communication to digital platforms and processes. The core product conducts the full lifecycle of a business letter:

> Writing ► attachments added ► verification and approval ► printing order generated ► transmitted to printing service for physical execution ► transfer of physical item to delivery service provider

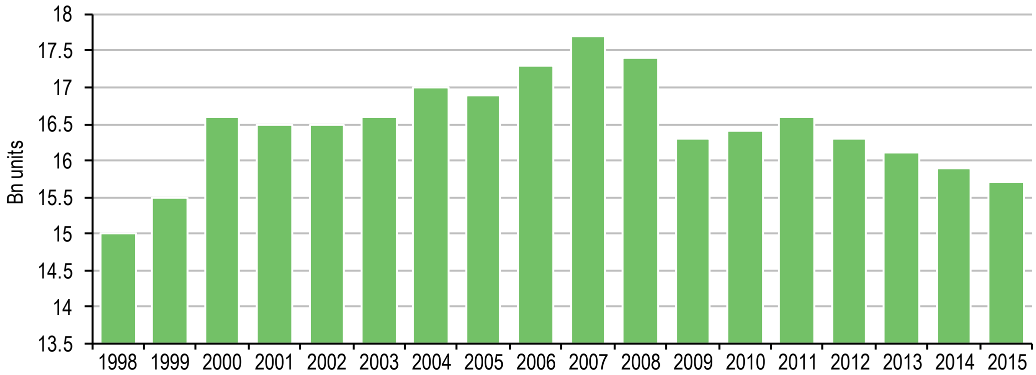
The total addressable market embraces the vast amount of correspondence processed by all delivery services, above all the former monopoly incumbent Deutsche Post. Binect puts this at €2bn in Germany with half of this actually available to the company and €200m as the target obtainable "market". Max 21 gives a figure of 6-8bn items annually as the volume of conventional postal mail that might ultimately migrate to hybrid forms compared to the 100m currently processed by Binect systems.

With the entire future of the business communication market uncertain Binect is making a play for a hybrid product that captures the positive features of the classical product (fits with habit and convention, and addresses covered by long-term existing legal framework) with the ease to the user of email.

The product is ready to be extended beyond its initial domestic sender to domestic recipient pattern. Processes for routing domestically generated mail to the EU and RoW are already in place. The next step will be to process mail generated abroad for delivery to German addresses. Binect is in the process of securing membership of the Union Postale Universelle, founded in 1874, now an agency of the United Nations and still the regulatory body for transnational mail.

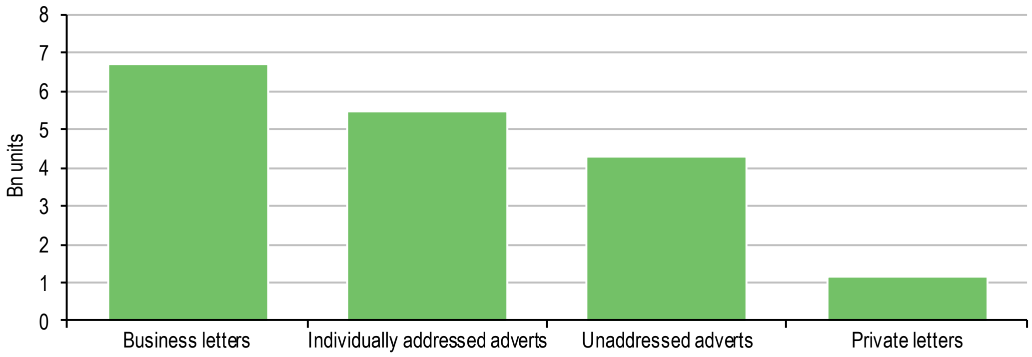
The volume of physical mail has declined from the peak reached in 2007, but it has only returned to the level of the late 1990s and thus before the full digitalisation of the economy was established. It remains overwhelmingly a form of business communication, with private letters now an almost insignificant item. Deutsche Post remains by far the dominant provider. By any standard, it remains an enormous market.

Exhibit 2: Number of licensed mailings



Source: Bundesnetzagentur

Exhibit 3: Letters carried by Deutsche Post



Source: Deutsche Post

Co-operation with Deutsche Post

Binect has the immense advantage of close co-operation with Deutsche Post, which began in 2011 and was extended by a fresh and revised contract signed in 2017 running to at least 2019. The co-operation embraces the two key areas of distribution and service provision.

Since 2012 Deutsche Post has distributed under its own label Binect's E-Post Business Box to enterprise customers. Deutsche Post receives monthly licensing and maintenance fees from its customers plus, more important, a per item usage charge. Binect is compensated by a per-item (click) fee. In 2016 Deutsche Post was probably the larger of the two major customers disclosed by Max 21 (both in the hybrid post segment), who contributed €3.32m of the segment's €4.28m total turnover. Under the revised contract, the bulk of revenue will now come from mailing services, displaying hardware sales of Business Boxes.

Under the deal, Binect also benefits from a special delivery tariff using Deutsche Post's services. This is significantly below the rates that enterprises can negotiate on their own and allows Binect to offer extremely competitive rates for full-service items covering printing and delivery to end-recipient of as little as €0.62 compared to a full cost estimated at €1.20-1.80 by other routes.

Product range

Binect offers a full gamut of product offerings tailored to meet the requirements of all scales of enterprise:

- **Binect Enterprise** addresses large-scale customers making 10,000 or more mailings per month. It is an entirely software product that resides on customer servers and can be customised according to individual requirements. It is distributed through a direct salesforce, which Binect is in the process of expanding.

- **Binect Cube** was launched in May 2016 and sales began in Q416. It addresses medium-sized enterprises with a mailing volume of an average of 1,000-1,500 items per month. It is based on a hardware item for which Binect charges approximately €500 although the principal target revenue source is per item charging. It is distributed through a network of partners such as suppliers of other types of office equipment including traditional mail franking machines.
- **Binect Online** is a standardised offering aimed at small enterprises with an average of 500 monthly mailings. This is distributed online and customers operate it either by a downloadable tool or a direct interface to Binect's server. Sales began in Q416.

Binect's business is expanding rapidly. In 2016, 79.6m items were sent via Binect systems, up from 61.1m in 2015. The current run-rate is some 100m items. In the first half of 2017, 134 new contracts were won either directly or via Deutsche Post, taking the total to 190 system customers. These new contracts had an average lifetime value of €27,000 at target usage rates. This would translate to incremental annual turnover of €1.7m although it appears that customers are falling short of target usage levels. By August 2017 Binect's direct sales efforts had brought in 66 contracts generating in total average recurring revenue of €0.1m per month.

Competitive environment

Binect's end-to-end product appears to have a significant competitive lead. Some generally analogous products are offered by printers as an extension of their standard offering but they suffer from lack of national scale.

Regulatory and data protection

The German postal market has been opened to competition for some years, but service providers must comply with stringent legal requirements built around the framework within which Deutsche Post has operated. The confidentiality of postal services is an item of the constitution. Information on senders and receivers is covered by data privacy legislation. Binect's data centre is certified compliant in both respects. Data is transmitted using state-of-the-art encryption and no sender/receiver data is retained by Binect.

KeyIdentity

Max 21's security business has undergone rather greater change than Binect. Top management was changed in the middle of 2016 and the name KeyIdentity was adopted as emblematic of the rejigged business strategy. The operation started life as an IT consultancy specialised in security issues but it has now been refocused on LinOTP, the solution that it developed for the burgeoning market in multifactor-authentication systems. The goal is to drive sales of LinOTP solutions, which offer scalable and recurring revenue potential, although the consultancy business continues under the Foxmole identity with a speciality in identifying potential weaknesses in customer systems.

Multifactor authentication (MFA)

The term MFA is applied broadly to the next layer of security protocol for system, portal or network access that goes beyond the current, near-universal practice of a combination of username and set password. Typically, this involves the use of a specific additional item, often a smartphone loaded with dedicated software, or a special purpose token.

The growing requirement for enhanced security is self-evident with ever more vigorous attacks on enterprise systems being undertaken, motivated by vandalism, commercial theft (of IP or customer data) or state intelligence requirements. The majority of successful penetrations arose from the weakness of single-user fixed passwords, which are especially vulnerable to human error.

In 2015, high-level security protection of enterprises active in critical infrastructure operations in Germany, typically utilities, was made legally mandatory. It is more than likely that this will be extended to other areas such as finance or healthcare.

LinOTP

The key element of KeyIdentity's offering is the LinOTP (**Lin**ux **O**ne **T**ime **P**assword) core for enterprise MFA platforms. It was developed as an entirely open-source product distributed free of charge with the goal of obtaining maintenance contracts from enterprises using the core. Since 2016 KeyIdentity has adopted an "open-core" model in which it markets proprietary modules built around the LinOTP core. These generate recurring per-user fees.

LinOTP generates unique passwords that cover a single access to a system and distributes them securely to authorised users. Single-use passwords practically eliminate the human errors around set passwords. They also present an almost uncrackable cryptanalytical challenge.

KeyIdentity has achieved impressive penetration of the German speaking markets with LinOTP, securing 261 installations covered by support contracts by August 2017, up from 245 at the end of 2016 and 171 at the end of 2015. Support contracts are generally relatively small in size: 22 new ones were signed in the H117 with life time value (LTV) to KeyIdentity of €63,300. The average term of these contracts is three years, suggesting an annual revenue contribution of approximately €10,000 each. The LTV of all these contracts has risen to €7.4m from €6.0m at the end of 2016. This translates into a stream of recurring monthly revenue of €53,000 (approximately €0.6m per year) compared to €33,000 recorded in H117. The comparison of €0.8m turnover and an EBIT loss of €1.8m implies operating costs of €2.6m so KeyIdentity will require a step change in turnover level to achieve profitability.

The largest customers are the Bundesamt für Sicherheit in der Informationstechnik (BSI – the German Federal data security agency), Bloomberg, eBay, Robert Bosch GmbH and the Swiss Canton of Bern. Naturally enough the adoption of LinOTP by the BSI announced in late 2016 was a high-profile win of the first importance.

KeyIdentity's revenue basis is well diversified with 174 active customers generating its turnover (up from 123 the previous year, implying some decline in revenue per customer). The top six customers accounted for only 43% of total turnover.

In the middle of 2017 KeyIdentity secured a breakthrough order for its proprietary LinOTP modules from ThyssenKrupp covering 10,000 users. Negotiations are underway to extend this contract to cover a further 30,000 users and the enterprise has another 40,000 potential users. The sales cycle for contracts of this scale is lengthy, running to several months before initial signature. KeyIdentity is awaiting client decisions on around seven proposals.

KeyIdentity has built a direct salesforce to address German-speaking markets. This may be expanded further. KeyIdentity has recently entered into an agreement with Arrow Electronics, the global distributor, for sales in other regions. Over the longer term, Max 21 is open to the possibility of driving KeyIdentity's internal business through a strategic partnership of some kind.

The competitive environment is highly fragmented and opaque. To a great extent this is because enterprises mainly rely on solutions developed in-house; the long-term role of third-party vendors is far from a given. KeyIdentity identifies a number of globally operating companies as its competitors: RSA; Duo; Gemalto. These are all far larger than KeyIdentity, underlining one of the key double challenges that it faces: persuading enterprises of the value of third-party solutions and building its own credibility as a vendor.

KeyIdentity also has a business distributing third-party hardware items for security access. This has little strategic importance and now principally consists of hardware tokens.

Legacy operations

While they have no significant effect on the forward valuation of the group, a number of investments remain from its former incarnation. The largest is NECDIS, the subsidiary, which holds the distributorship for some NEC products in the German-speaking region. It is still consolidated in the accounts although its activities are being run down; headcount was only two at end June 2017 compared to six a year before.

Max 21 also holds 8% of GFN, a major IT training and personnel development company, together with a holding of less than 1% in Deutscher Sportausweis, which provides a registration and membership platform for sporting groups and their members.

Recent newsflow and upcoming catalysts

Prior to the change in management and business strategy, Max 21 had performed extremely poorly. It had been in losses since at least 2011 and the balance sheet was in a poor state. There was thus extensive work to be done and this heavily affected the 2016 accounts. Non-recurring charges of €2.4m were taken to cover the cost of personnel and top management changes. The company also adopted an IFRS consolidated accounting basis.

Because of the scale of the changes in business model implemented in the course of 2016 and the absence of fully comparable consolidated IFRS data, the 2016 results give practically no guide to how the group developed. By contrast, the first half figures for 2017 gave the first insight into how the new strategy is playing out.

Consolidated turnover (€3.04m, +2.6% y-o-y) and operating loss (€3.26m, down 3.9% y-o-y %) were both broadly unchanged, but these mark important and encouraging shifts. The new business strategy translated into a shift in turnover in favour of the longer-term strategic revenue sources and away from move legacy areas.

Exhibit 4: Half-year results

€000s	H116	H117	Change (%)
Turnover			
KeyIdentity	813.3	689.3	(15.2)
o/w LinOTP	149.3	283.4	89.8
o/w Consulting	362.2	333.2	(8.0)
o/w Hardware	90.6	29.1	(67.9)
Binect	1,978.0	2,040.3	3.1
o/w Mailing	1,685.4	2,040.1	21.0
o/w Hardware	292.6		
NECDIS	1,088.6	362.4	
Eliminations	(917.4)	(52.2)	
Total	2,962.5	3,039.8	2.6
EBIT			
KeyIdentity	(1,738.4)	(1,789.6)	
Binect	(1,200.3)	(918.4)	
NECDIS	(118.9)	(267.2)	
Eliminations	(332.8)	(281.6)	
Total	(3,390.4)	(3,256.8)	(3.9)

Source: Max 21

At Binect, turnover was only up 3%, but this included a 21% rise in revenue from mailing services driven by a 27% surge in the volume of items processed, while revenue from hardware sales practically disappeared, reflecting the effects of the new contract with Deutsche Post. Similarly and even more strikingly, turnover at KeyIdentity dropped 15%, but LinOTP sales almost doubled. This more than offset a drop in sales at the Foxmole consultancy business and a fall of two-thirds in hardware sales, which now consist solely of security tokens. Turnover at the legacy hardware distribution operation declined sharply as it was wound down.

The largest cost item remained payroll, which dropped 4% to €3.30m due to lower severance costs for former board members. Other operating costs were up 6.7% at €1.51m in part because of intensified marketing activities. These are representative of ongoing levels and point to an annual cash operating cost base of some €10m. On top of this would come depreciation, which was €0.95m in H117.

On a less happy note, the incremental turnover from the strategically important mailings and LinOTP activities were behind expectations. The sales cycle at KeyIdentity proved to be more prolonged than originally hoped and usage of installed Binect systems lagged expectations. In consequence, Max 21 has brought back its P&L projections and now expects full year turnover of approaching €10m compared to €3m in H1 and some reduction in the EBITDA loss. Previously it had hoped to halve 2016's EBITDA loss of €4.16m. Binect is now expected to reach break-even in Q118 and KeyIdentity sometime in H218.

Financials

Exhibit 5: Financial summary (€000s)

Year to end	Jun-14	Jun-15	Dec-15	Dec-16
Income statement				
Revenue	469	568	3,308	6,391
Cost of materials	N/S	N/S	(1,367)	(2,665)
Payroll costs	(421)	(531)	(2,084)	(6,537)
Non-recurring costs				(2,401)
EBT	N/S	N/S	(1,887)	(6,024)
Financial net	N/S	N/S	(29)	(1,264)
Profit before tax (as reported)	(298)	(586)	(1,916)	(7,288)
Net income (as reported)	(298)	(568)	(1,520)	(6,425)
EPS (as reported) (€)	N/S	N/S	(0.16)	(0.52)
Dividend per share (€)	0.0	0.0	0.0	0.0
Balance sheet				
Total non-current assets	8,916	19,240	27,253	27,625
o/w intangible	N/S	N/S	21,546	21,106
o/w tax losses c/f	N/S	N/S	4,923	6,007
Total current assets	334	487	3,910	2,380
Total assets	10,054	23,445	31,163	30,005
Shareholder equity	9,546	23,122	25,035	23,237
Cash flow				
Net cash from operating activities	N/S	N/S	(612)	(4,978)
Net cash from investing activities	N/S	N/S	(6,165)	(1,342)
Net Cash from financing activities	N/S	N/S	4,256	5,381
Net Cash Flow	N/S	N/S	(2,520)	(939)
Cash & cash equivalent end of year	790	3,706	1,616	677

Source: Max 21

Balance sheet and cash flow

Max 21 was still cash negative in H117 with an outflow from operations of €2.6m before capex of €0.4m due overwhelmingly to continuing current losses. A capital increase at €1.72 per share brought in €4.3m of fresh equity and cash leaving the company with €0.56m in net financial debt at the end of June. The half-year statement disclosed that the company was considering various financing options, in particular a further capital increase.

Valuation

Clearly the probability of another capital increase to fund cash burn adds a degree of uncertainty to the question of valuing the shares. Moreover, only in 2019 is it likely that the P&L will give an indication of ongoing profitability.

The most robust tool available to value the shares is P/NAV. Book value per share stood at €1.68 at end June 2017 compared to a share price of €1.62. This is, though, subject to any adjustments in the intangibles and tax losses carried forward, which make up the bulk of assets. The auditors observed that the values assigned to these assets depended on the future profitability and financing of the business.

Sensitivities

- **Contract wins:** with one breakthrough contract for chargeable LinOTP under its belt, news of further such contracts will be a key factor.
- **Security legislation:** any extension of legally mandated security standards for access in particular industries will improve sentiment towards the Binect operations.
- **High-profile security breaches:** news of (practically inevitable) major breaches of IT security such as the problem recently experienced by Equifax will contribute to sentiment.
- **International partnership for KeyIdentity**: a deal with a major international vendor would greatly improve LinOTP's prospects outside its home market. One involving an equity stake might also provide a figure on which to value the business.
- **Relationship with Deutsche Post**: this is clearly of enormous importance to the future of Binect and can now be considered stable for the near future. The depth of the organic relationship invites speculation that Deutsche Post might wish to cement it with an equity investment.
- **Legacy businesses**: firm news that any of the legacy businesses had been divested would make for a clearer view of the group's structure together with the possibility of some easing of financing requirements.

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