



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

March 21, 2014

Via E-mail

Peter Leys
Executive Chairman
Materialise NV
Technologielaan 15
3001 Leuven
Belgium

**Re: Materialise NV
Draft Registration Statement on Form F-1
Submitted February 24, 2014
CIK No. 0001091223**

Dear Mr. Leys:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at <http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm>.
2. Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (<http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm>). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that

information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

3. Please be advised that you should include the price range, size of the offering, and all other required information in an amendment to your Form F-1 prior to any distribution of preliminary prospectuses so that we may complete our review. Note that we may have additional comments once you have provided this disclosure. Therefore, please allow us sufficient time to review your complete disclosure prior to any distribution of preliminary prospectuses.
4. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.
5. We note that you intend to file by amendment certain exhibits, including the underwriting agreement, consents and the legal and tax opinions. We may have comments on the opinions and other exhibits after they are filed. Please allow sufficient time for staff review of these materials before requesting acceleration of effectiveness of the registration statement.
6. Prior to the effectiveness of the registration statement, please arrange for a representative of FINRA to call us or confirm in writing that it has cleared the underwriting arrangements for the offering.
7. Please supplementally provide us with copies of any graphical materials or artwork you intend to use in your prospectus. Upon review of such materials, we may have further comments. For guidance, please refer to Question 101.02 of our Securities Act Forms Compliance and Disclosure Interpretations.
8. Please specifically disclose the factual basis for and the context of your beliefs, understandings, estimates and opinions as to your “leading” products and market position as set forth in the registration statement. Please also clarify when a statement is attributable to Materialise NV versus a third party. The following are examples of assertions or references where you should elaborate upon the basis upon which you or your products are, for example, “leading” or otherwise unique. Please also provide us supplementally with copies of any studies or other materials that you are relying upon to support your statements:

- “We are a *leading* provider of additive manufacturing software and of sophisticated 3D printing services;”
- “We believe our software products have become *globally leading* products in the markets we serve . . .;”
- “Our proprietary software platforms . . . have become a *market standard* for professional 3D printing . . .;”
- “. . . a number of our products, including Magics and Streamics, have evolved into *industry leading* flagship products;”
- “As a *pioneer* in the additive manufacturing industry, we believe we have an *unmatched history* of 3D printing. . .;” and
- “For example, we believe our software programs have become *globally leading* products . . .” [emphasis added].

Table of Contents

9. We note your disclosure in the first paragraph after the table of contents that the information in the prospectus is accurate only as of its date, regardless of the time of sale of the ADSs, and that your business, financial condition or prospects may have changed since that date. This statement may suggest to investors that they are responsible for seeking to obtain relevant updated information, or that you are not responsible for omissions of material facts necessary to make your statements not misleading at the time of sale or contract of sale. Note that information that is conveyed after the time of sale or contract of sale is not taken into account for purposes of section 12(a)(2) or 17(a)(2) of the Securities Act. Please delete or clarify this statement.
10. In the second paragraph under the table of contents, we note your disclosure that representations, warranties and covenants that you have made in any agreement filed as an exhibit to the registration statement were made solely for the benefit of the parties, should not be deemed to be for the benefit of investors, and should not be relied upon as accurately representing your current state of affairs. Please note that it is our position that all material filed with the registration statement, including in contracts filed as exhibits, constitutes disclosure upon which investors may rely. Please revise your statement to remove any potential implication that the referenced agreements do not constitute public disclosure under the federal securities laws. Please also be advised that, notwithstanding the inclusion of a general disclaimer, you are responsible for considering whether additional specific disclosures of material information regarding material contractual provisions are required to make the statements included in the prospectus not misleading. Please confirm your understanding.

Prospectus Summary, page 1

General

11. Certain information contained in the Prospectus Summary section is substantially identical to the information contained in the Business section, as well as your MD&A. Please strive for a balanced summary presentation that avoids the use of repetitious disclosure. The summary should provide a brief, non-generic discussion of the most material aspects of your company and your offering. Please reduce the disclosure in the Prospectus Summary section by carefully considering and identifying those aspects of the offering that are most significant and highlight them in plain, clear language. You may wish to include an appropriate cross reference to the Business section where this detailed information appears. Please refer to Item 503 of Regulation S-K and SEC Release No. 33-7497.
12. Please ensure that the information you include in your summary is balanced. To the extent you cite competitive strengths in your summary, please review each one and revise as necessary to provide balancing information rather than merely listing generalized risk factors at the end of this section. For example, in the Risk Factors, you discuss the rapidly decreasing barriers for competitors, and even customers, to enter the markets for 3D printing solutions. This seems to be related to the significant industry growth that you emphasize at various points in the summary. If so, consider whether a reference to decreasing barriers to entry should accompany your statements about industry growth to provide a more balanced summary discussion.
13. With respect to all third-party statements in your prospectus, including the industry and market data from Wohlers Report 2013, Frost & Sullivan, and MarketsndMarkets presented in your summary and/or elsewhere in your submission, please supplementally provide us with copies of such publications. To expedite our review, please clearly mark each source to highlight the applicable portion or section containing the statistic and cross-reference it to the appropriate location in your prospectus. Also, please tell us whether the reports were prepared for you.

Company History and Structure, page 13

14. Please expand your disclosure to include the purchase price of each of the acquisitions disclosed and the reportable segment that the acquisitions have been assigned.

The Offering, page 15

15. You disclose on page 16 that unless otherwise indicated all information in this prospectus assumes that a stock split will take place upon closing of this offering. Please revise your disclosure to clarify the timing of the stock split (i.e., at or immediately before the effectiveness of your registration statement or after effectiveness of your registration

statement but concurrently with this offering). Please also address the disclosure requirements in IAS 10.21-.22 and IAS 33.64 and .70(d) in your audited financial statements. Finally, please provide pro forma information throughout the filing but outside of the audited financial statements in accordance with Article 11 of Regulation S-X for the change in your capital structure.

Risk Factors, page 19

Our international operations subject us to various risks, page 23

16. Here or elsewhere, include discussion of the risks and effects of the current instability in Ukraine on your operations.

We may lose our foreign private issuer status in the future, page 44

17. We note that you plan to apply for listing on an exchange. If you intend to rely on exchange rules that permit foreign private issuers to follow their home country requirements to some extent concerning corporate governance issues, then provide a risk factor that discloses this reliance and describes the corporate governance matters affected.

Use of Proceeds, page 54

18. We note that you have disclosure in this section and in a risk factor that you may use the proceeds of the offering other than as described. Please note that Instruction 7 to Item 504 of Regulation S-K permits an issuer to reserve the right to change the use of proceeds, but that such reservation must be due to certain contingencies that are specifically described in the prospectus, and that alternatives to such to use in that event are indicated. Please revise your Use of Proceeds section to describe the contingencies that would cause you to change your use of proceeds with more certainty and specificity, and to discuss how else you would use proceeds upon the occurrence of these contingencies.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 62

Results of Operations, page 66

19. Please expand your discussion and analysis of revenue to address the key factors that may have the greatest impact on revenues, as discussed on page 64. Please also consider the factors listed in the risk factor, Our revenue and results of operations may fluctuate, on page 21. For example, we would expect your discussion and analysis for your 3D Printing Software and Medical segments to include an analysis of customer licenses, both perpetual and time-based, including a comparison of customer licenses with disclosure of the number of new customer licenses, the increase in existing customer licenses, and the

number of customer renewals and how the changes in these numbers impacted revenue recognized. Similar disclosure may be appropriate for maintenance contracts, as well. For the Medical and Industrial Production segments, similar quantification for printed products and guides produced may be appropriate with a link to revenue recognized.

20. Please quantify the extent to which increases/decreases in volumes sold, increases/decreases in prices, raw material inflation pass-through, and foreign exchange variances impacted the increase or decrease in revenue and gross profit at the consolidated level, and revenue and Segment EBITDA at the reportable segment level, for each period presented. In addition, please quantify the impact of other factors you identified that contributed to fluctuations in all of the line items comprising net profit for your discussion and analysis of the consolidated results and reportable segment results. Please refer to Item 5.A. of Form 20-F and Section 501.12.b.3 of the Financial Reporting Codification for guidance.
21. Please expand your discussion and analysis of EBITDA at the reportable segment level to provide segment-specific analysis for the change as a percentage of revenue. For example, you note the Industrial Production segment's EBITDA, excluding i.materialise and RapidFit, increased to 14% for fiscal year 2013 from 7% for fiscal year 2012 without a discussion and analysis as to why.

Liquidity and Capital Resources, page 69

Transfers from Subsidiaries, page 71

22. We note your disclosures regarding dividends payable by your subsidiaries. Please expand your disclosure to provide additional clarity regarding the amount of cash and cash equivalents that are held outside of Belgium, the amount that if dividend to the parent would be subject to withholding taxes, and the amount that is restricted by law and/or requires prior approval that is outside of your control.
23. Please provide us with your analysis of the guidance in Article 12-04 of Regulation S-X in determining that the schedule is not required to be presented. Please refer to Items 4(b) and 8(b) of Form F-1 and Item 17(a) of Form 20-F for guidance.

Contractual Obligations, page 72

24. Please include scheduled interest payments in your table.

Critical Accounting Policies and Accounting Estimates, page 73

Revenue Recognition, page 73

25. Please remove the term, generally, from your disclosure and include all material information for your revenue recognition policies (i.e., the elements that are not sold on a stand-alone basis and the other methods used to determine the percentage of completion).

Share-Based Payment Transactions, page 74

26. Please note that once you have disclosed the estimate of the IPO price/range we may have comments regarding the estimated fair value of your most recent equity grants.

Business, page 77

27. Under an appropriate subheading, please discuss the geographic market or markets in which you do business, and include a breakdown by geographic market of your revenues. Please see Item 4.B.2. of Form 20-F.

Audit Committee, page 114

28. We note your disclosure on pages 114 and 127, which suggests that only two out of three directors on your audit committee are independent, and does not indicate whether you anticipate changing the composition of your audit committee. Supplementally, with a view toward disclosure, please tell us whether and how the composition of your audit committee will be modified after effectiveness to comply with the independence requirements of Section 10A(m) of the Exchange Act. Specifically, please discuss whether you are relying on any exemptions from the independence requirements for newly public companies or employees for foreign private issuers under Exchange Act Rule 10A-3(b)(iv).

Principal and Selling Shareholders, page 120

29. Please tell us whether you are aware of the persons who, directly or indirectly, have or share voting and/or investment power with respect to the Materialise ordinary shares held by Sniper Investments NV, Distri Beheer 21 Comm Va, and DVP Invest BVBA. To the extent you possess such information, please expand the prospectus to identify the natural persons who are the beneficial holders of the shares held of record by these selling shareholders.
30. Please state the number of record holders in the United States and the corresponding percentage of your outstanding stock currently held in the United States. See Item 7.A.2 of Form 20-F.

Description of Share Capital, page 122

Share Capital and Shares, page 122

31. We note your disclosure that there “are no separate classes of shares.” We also note references to Class A ordinary shares, Class B ordinary shares and Class C ordinary shares throughout your registration statement. To the extent your reference to “no separate classes of shares” refers to your share capital after the completion of the offering and effectiveness of your amended and restated articles of association, please so state, or advise.
32. We note that effectiveness of your amended and restated articles of association is subject to completion of the offering. Please clarify whether this is the case or whether the offering is conditioned upon effectiveness of the amended and restated articles. Please also see paragraph II.B.2.f of Staff Legal Bulletin 19 for our views on legality opinions given in offerings conditioned upon charter amendments.

Board of Directors, page 126

33. We note your disclosure that “Belgian law does not specifically regulate the ability of directors to borrow money from our company.” To the extent that any such loans to a director may be made and/or will be outstanding following effectiveness of your registration statement, please be aware of the prohibition set forth in Section 13(k) of the Securities Exchange Act of 1934.

Description of the Rights and Benefits Attached to Our Shares, page 129

34. Please revise your disclosure to include discussions of the following as necessary:
- A comparison of the laws of the United States and Kingdom of Belgium laws as per Item 10.B.9 of Form 20-F;
 - A statement regarding procedures, if any, for liability to further capital calls by the company as per Item 10.B.3(g) of Form 20-F; and
 - Whether or the extent that shareholders may submit matters to be voted upon at shareholders meetings.

Description of American Depositary Shares, page 133

35. Please revise this section throughout as necessary to make it specific to the agreement with your depositary. We note, for example, the following:
- Your disclosure under “Dividends and Other Distributions, page 133” should make clear the effect of a redemption, forfeiture or transfer of shares on the amounts held;

- Your disclosure under “Voting Rights, page 135” should make clear whether the depositary has the option to vote electronically; and
- Your discussion under “Pre-release of ADSs, page 139” should make clear the “limit” on the amount of ADSs that may be outstanding as a result of pre-release transactions.

Shares Eligible for Future Sales, page 140

Lock Up Agreements, page 140

36. Please briefly describe the factors that the underwriters would consider in determining whether to consent to the sale of ADSs or ordinary shares by the company, directors, senior management, key employees, certain shareholders and the selling shareholders before the lock-up period’s expiration. We note your reference to “with certain limited exceptions” and that the agreements “provide exceptions for, among other things, sales to underwriters pursuant to the underwriting agreement.” Please revise here and on page 150.

Underwriting, page 150

37. Please show the separate amounts of underwriting compensation to be paid by the company and the selling shareholders, as required by Item 508(e) of Regulation S-K.
38. In your disclosure in the third paragraph on page 151, it is not clear whether the underwriters may engage in both covered short sales and naked short sales. Please revise your discussion to clarify this point. Include disclosure that explains:
- what covered and naked short sales are, how the underwriters close out covered and naked short sales;
 - how the underwriters determine the method for closing out covered sales positions;
 - when a naked short position will be created, for example, if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering; and
 - the potential effects of underwriters’ short sales and underwriters’ transactions to cover short sales.

Exhibits

39. We note your risk factor on page 21 and other disclosures in your prospectus that discusses your reliance on collaboration agreements, including those with Diomet, DJO Surgical, Synthes and Zimmer. Please tell us what consideration you have given to whether you are substantially dependent upon any of these or other collaboration agreements, and whether they are material contracts that should be filed as exhibits to the registration statement.

2 Basis of Preparation, page F-8

40. Please expand your disclosures to include the information required by IAS 12.13. In this regard, we note your disclosures on page 71 regarding transfers from subsidiaries.
41. We note that you have entered into several collaboration agreements with various third parties and terms. Please include your accounting policy for each of the material collaboration agreements in existence during each period presented. Please provide us with the specific reference to the IFRS literature that supports your accounting. Please also ensure that your disclosures provide investors with an understanding of how the collaboration agreements are reflected in and have impacted your consolidated financial statements.
42. Please include your accounting policy for provisions and contingent liabilities. In this regard, we note your disclosures on pages 35 and 107. Please also provide the disclosures required by IAS 37.84 - .92.

Revenue recognition, page F-17

43. Please expand your disclosure for recognizing revenue for perpetual licensed software to clarify how the portion of the revenue related to the one-year maintenance services that are included in the price of perpetual licenses is recognized.
44. Please expand your disclosure for software development services to clarify how the stage of completion is measured. Please also clarify if your time and material-based services contain caps on the amount of costs that may be billed. For any caps on revenues to be earned for time and material-based services, clarify how revenue is recognized in relation to the cap. Finally, please clarify how and when known losses are recognized in the consolidated financial statements.
45. Please expand your disclosure for the recognition of royalty fees to clarify when these fees are earned. Please refer to the guidance in IAS 18.29 - .30 and .33.
46. Please provide the disclosure for the amount of each significant category of revenue recognized during the periods presented in accordance with the guidance in IAS 18.35(b).

Government grants, page F-18

47. Please disclose the nature of the government grants received and whether there are any unfulfilled conditions or other contingencies attached to the government grants that have been recognized to date. Please refer to IAS 20.39.

5 Goodwill, page F-24

48. Please expand your disclosures to provide the following additional information:

- Disclose the reportable segment that the German CGU is included (refer to IAS 36.80(b)).
- Disclose the recoverable amount for the German CGU (refer to IAS 36.134(c)).
- Clarify whether the change in growth rate and discount rate would cause the recoverable amount to decrease by the amount disclosed or decrease to the amount disclosed.

7 Property, Plant & Equipment, page F-26

49. Please separately present land and buildings, as land is not amortized.

17 Segment Information, page F-40

50. Please expand your footnote to disclose the revenues from external customers for each product and service you offering. We note your disclosures on pages 63 to 64, noting that your 3D Printing Software segment generates revenues from perpetual software licenses, time-based software licenses, maintenance contracts, and custom software development services; your Medical segment generates revenues from the sale of medical devices printed in-house, sale of licenses of your medical software packages, software maintenance packages, custom software development services, and custom engineering services; and your Industrial Production segment generates revenue from the sale of parts printed in-house. Please refer to IFRS 8.32 for guidance.

You may contact Tracey Smith, Staff Accountant at (202) 551-3736 or Alfred Pavot, Staff Accountant at (202) 551-3738 if you have questions regarding comments on the financial statements and related matters. Please contact Kamyar Daneshvar, Staff Attorney at (202) 551-3787 or me at (202) 551-3765 with any other questions.

Sincerely,

/s/ Pamela Long

Pamela Long
Assistant Director

cc: Via E-mail
Alejandro E. Camacho, Esq., Clifford Chance US LLP