

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5693872

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
EDWARD R. HOWORKA	03/19/1998
RECEIVING PARTY DATA	
Name:	NEX GROUP PLC
Street Address:	2 BROADGATE
City:	LONDON
State/Country:	UNITED KINGDOM
Postal Code:	EC2M 7UR
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	09029181
CORRESPONDENCE DATA	
Fax Number:	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Email:	michelle.marsh@cmegroup.com, jpadalino@lsk-iplaw.com
Correspondent Name:	LEMPIA SUMMERFIELD KATZ LLC
Address Line 1:	20 S. CLARK STREET, SUITE 600
Address Line 4:	CHICAGO, ILLINOIS 60603
ATTORNEY DOCKET NUMBER:	004672-95456Y-US
NAME OF SUBMITTER:	JAMES L. KATZ
SIGNATURE:	/JAMES L. KATZ/
DATE SIGNED:	08/29/2019
Total Attachments: 7	
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ASSIGNMENT

WHEREAS, I, Edward R. Howorka residing at 2043 Gates Court, Morris Plains, NJ 07950 have invented a new and useful **ANONYMOUS TRADING SYSTEM WITH IMPROVED QUOTE INPUT CAPABILITIES** for which an application for United States Letters Patent thereon was filed in the United States Patent and Trademark Office on February 25, 1998, as Serial No. 09/029,181, said application being identified as Docket No. 6047-108 (976291) of the law firm of Fulbright & Jaworski L.L.P.; and

WHEREAS, EBS DEALING RESOURCES, INC. a Delaware corporation, having its principal place of business at 535 Madison Avenue 24th Floor, New York, NY 10022 is desirous of acquiring the entire and exclusive right, title and interest in and to the said invention in the United States and throughout the world, and in and to any Letters Patent which may be granted and issued therefor;

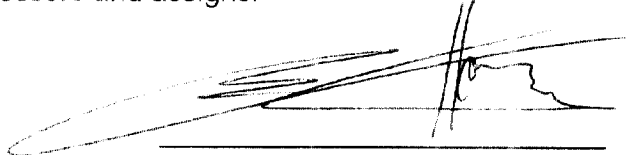
NOW, THEREFORE, for the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I the said Edward R. Howorka by these presents do hereby sell, assign, transfer and set over unto the said EBS DEALING RESOURCES, INC. its successors and assigns, the entire and exclusive right, title and interest in and to said invention, in the United States and throughout the world, and in and to any Letters Patent which may be granted and issued therefor, and in and to any continuations, divisions, reissues and extensions of said Letters Patent and all international priority rights associated therewith; and I further agree to sign all papers and perform all acts, without any further consideration but at no cost or expense to me, as said Edward R. Howorka may deem necessary to make this Assignment fully effective, including the execution of any and

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all original, reissue, divisional and continuing United States and foreign patent applications.

And I hereby authorize and request the Commissioner of Patents and Trademarks to issue the said United States Letters Patent to said EBS DEALING RESOURCES, INC. its successors and assigns.

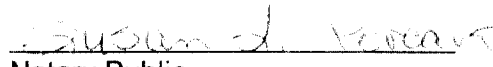

Edward ^{A.}R. Howorka

STATE OF CALIFORNIA

SS

COUNTY OF Orange

On March 17, 1998 before me Susan L. Porcaro a Notary Public, personally appeared Edward R. Howorka, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.


Notary Public

SUSAN L. PORCARO
A Notary Public of New Jersey
My Commission Expires January 24, 2001



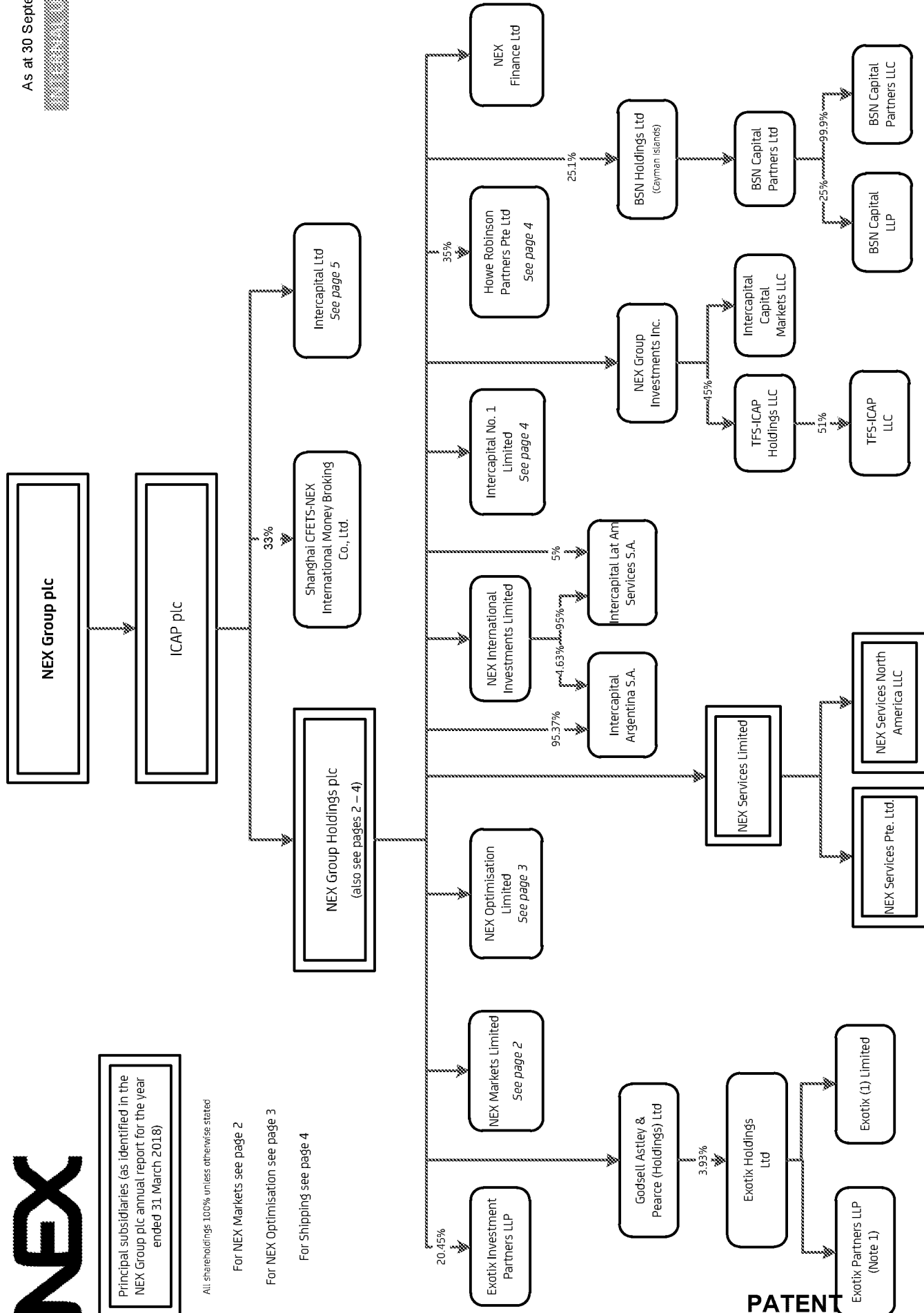
Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated

For NEX Markets see page 2

For NEX Optimisation see page 3

For Shipping see page 4

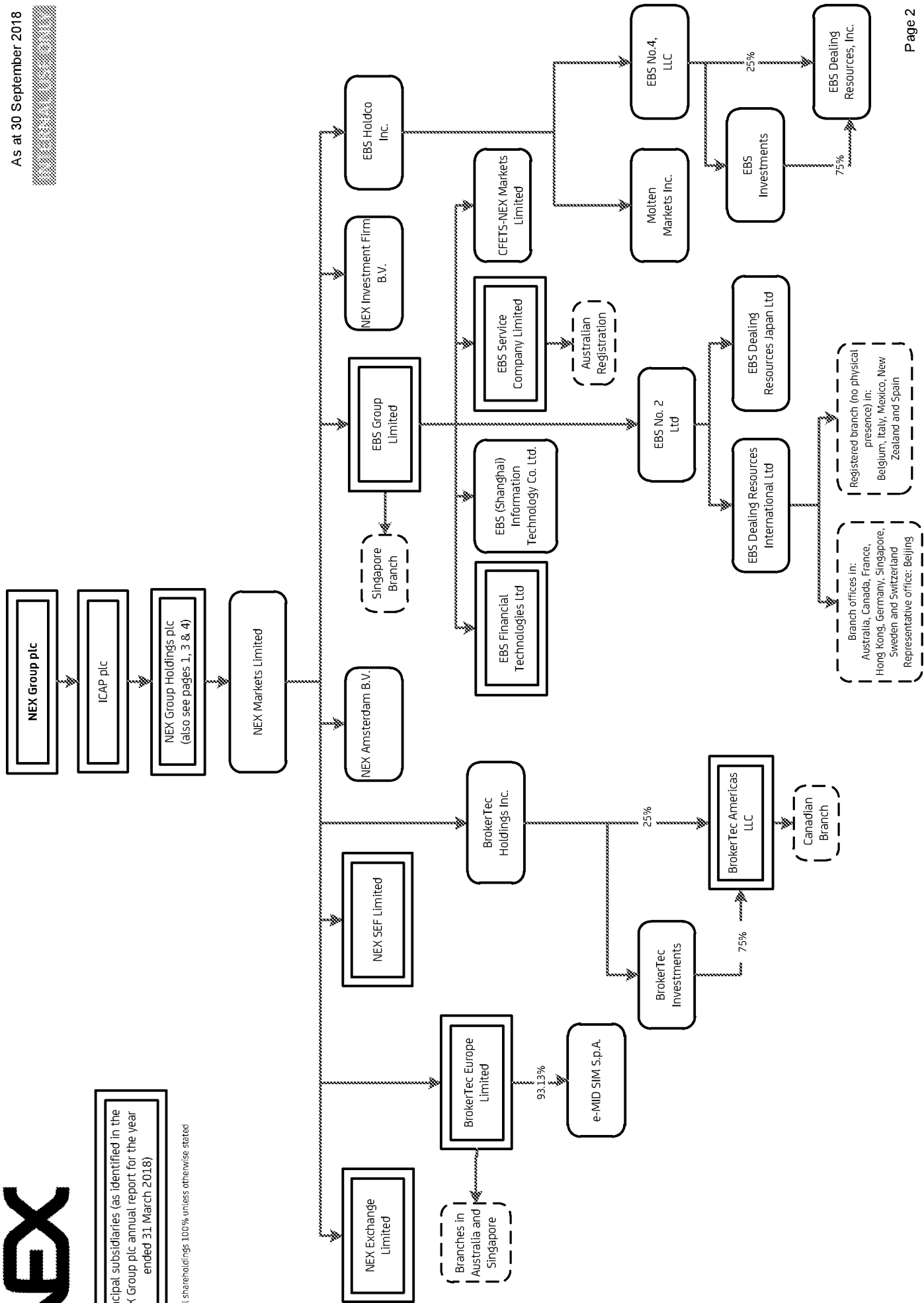


Note 1: Exotix Limited holds one capital point in Exotix Partners LLP on trust for Exotix Holdings Limited.



Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated



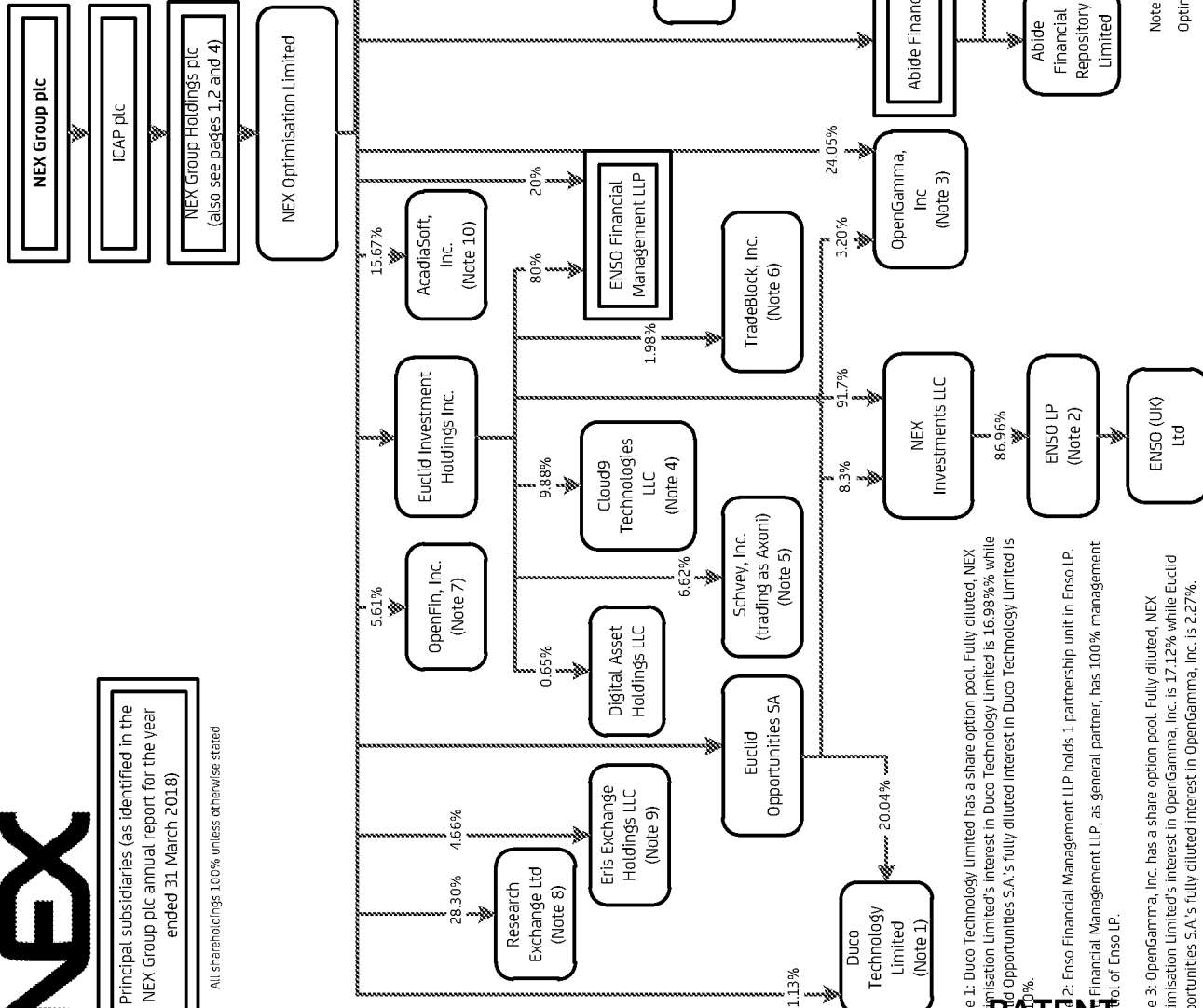
Branch offices in:
 Australia, Canada, France,
 Hong Kong, Germany, Singapore,
 Sweden and Switzerland
 Representative office: Beijing

Registered branch (no physical presence) in:
 Belgium, Italy, Mexico, New Zealand and Spain



Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated



Note 1: Duco Technology Limited has a share option pool. Fully diluted, NEX Optimisation Limited's interest in Duco Technology Limited is 16.98% while Euclid Opportunities S.A.'s fully diluted interest in Duco Technology Limited is 1.49%.

Note 2: ENSO Financial Management LLP holds 1 partnership unit in Enso LP. ENSO Financial Management LLP, as general partner, has 100% management control of Enso LP.

Note 3: OpenGamma, Inc. has a share option pool. Fully diluted, NEX Optimisation Limited's interest in OpenGamma, Inc. is 17.12% while Euclid Opportunities S.A.'s fully diluted interest in OpenGamma, Inc. is 2.27%.

Note 4: Euclid Investment Holdings Inc. has a 9.88% voting interest and a 8.88% economic interest in Cloud9 Technologies LLC.

Note 5: Schvey, Inc. has a share option pool. Fully diluted, Euclid Investment Holdings, Inc.'s interest in Schvey, Inc. is 5.96%

Note 6: TradeBlock, Inc. has a share option pool. Fully diluted, Euclid Investment Holdings, Inc.'s interest in TradeBlock, Inc. is 1.70%.

Note 7: OpenFin, Inc. has a share option pool. Fully diluted, NEX Optimisation Limited's interest in OpenFin, Inc. is 4.89%.

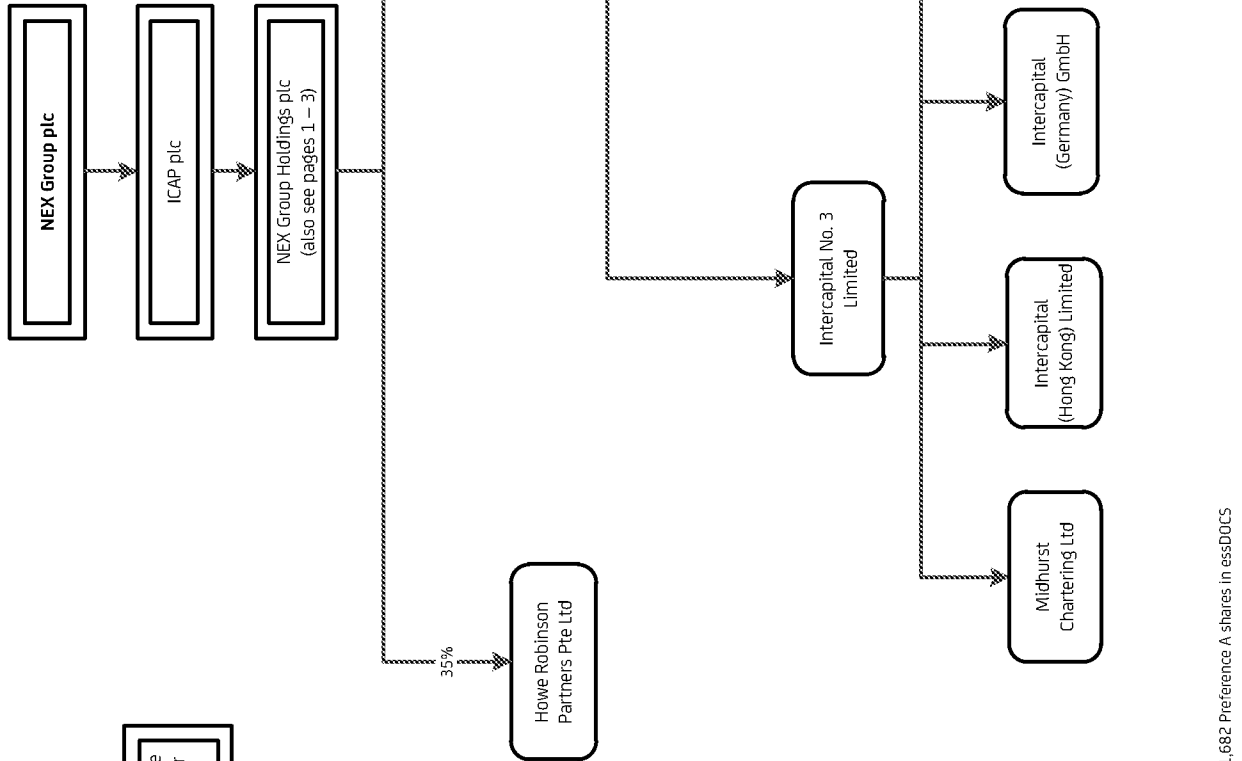
Note 8: Research Exchange Ltd has a share option pool. Fully diluted NEX Optimisation Limited's interest in Research Exchange Ltd is 26.32%.

Note 9: Eris Exchange Holdings, LLC has an equity incentive plan and stock reserved for liquidity providers. Fully diluted, NEX Optimisation Limited has a 4.09% interest in Eris Exchange Holdings, LLC.

Note 10: AcadiaSoft, Inc. has granted non-voting restricted stock awards. Fully diluted, NEX Optimisation Limited's interest in AcadiaSoft, Inc. is 13.85%.

Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated



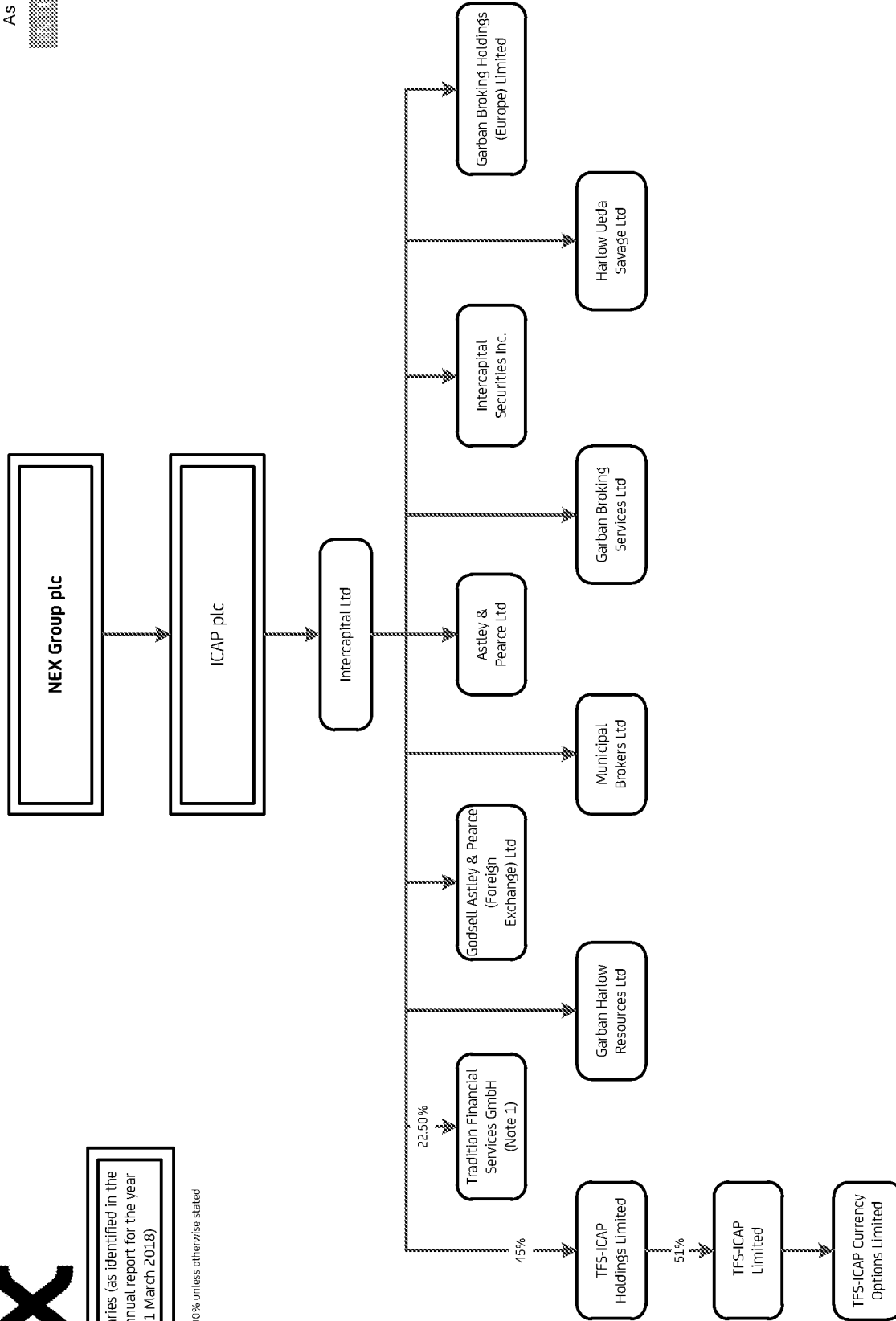
Note 1: Intercapital No. 1 Limited holds 11,682 Preference A shares in essDOCS Limited.

Note 2: Intercapital No. 2 Limited has 50% voting interest and 45% economic interest in Capital Shipbrokers Ltd.



Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated



Note 1: Intercapital Limited has 33.33% nominal holding and 22.50% voting and economic interest in Tradition Financial Services GmbH.