

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6859801

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the ASSIGNEE'S NAME AND ADDRESS ON THE COVER SHEET previously recorded on Reel 050214 Frame 0317. Assignor(s) hereby confirms the ASSIGNMENT.
<b>RESUBMIT DOCUMENT ID:</b>	506783456

**CONVEYING PARTY DATA**

Name	Execution Date
EDWARD R. HOWORKA	04/12/2001
ANDREW P. FORAY	04/06/2001

**RECEIVING PARTY DATA**

<b>Name:</b>	ELECTRONIC BROKING SERVICES LIMITED
<b>Street Address:</b>	55-56 LINCOLNS INN FIELDS
<b>City:</b>	LONDON
<b>State/Country:</b>	ENGLAND
<b>Postal Code:</b>	WC2A 3LJ

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	09603523

**CORRESPONDENCE DATA****Fax Number:**

*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.*

**Phone:** 3122910860  
**Email:** jpadalino@lsk-iplaw.com  
**Correspondent Name:** LEMPIA SUMMERFIELD KATZ LLC  
**Address Line 1:** 20 SOUTH CLARK STREET  
**Address Line 2:** SUITE 600  
**Address Line 4:** CHICAGO, ILLINOIS 60603

<b>ATTORNEY DOCKET NUMBER:</b>	004672-00988Z-US
<b>NAME OF SUBMITTER:</b>	JAMES L. KATZ
<b>SIGNATURE:</b>	/James L. Katz/
<b>DATE SIGNED:</b>	08/11/2021

**Total Attachments: 9**

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## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5694158

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
EDWARD R. HOWORKA	04/12/2001
ANDREW P. FORAY	04/06/2001
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	NEX GROUP PLC <u>ELECTRONIC BROKING SERVICES LIMITED</u>
<b>Street Address:</b>	2 BROADGATE <u>55-56 LINCOLNS INN FIELDS</u>
<b>City:</b>	LONDON
<b>State/Country:</b>	UNITED KINGDOM <u>ENGLAND</u>
<b>Postal Code:</b>	EG2M 7UR <u>WC2A 3LJ</u>
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	09603523
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Email:</b>	michelle.marsh@cmegroup.com, jpadalino@lsk-iplaw.com
<b>Correspondent Name:</b>	LEMPIA SUMMERFIELD KATZ LLC
<b>Address Line 1:</b>	20 S. CLARK STREET, SUITE 600
<b>Address Line 4:</b>	CHICAGO, ILLINOIS 60603
<b>ATTORNEY DOCKET NUMBER:</b>	004672-00988Z-US
<b>NAME OF SUBMITTER:</b>	JAMES L. KATZ
<b>SIGNATURE:</b>	/JAMES L. KATZ/
<b>DATE SIGNED:</b>	08/29/2019
<b>Total Attachments: 7</b>	
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WHEREAS, We, Edward R. Howorka and Andrew P. Foray, as assignors, have invented certain improvements in ARCHITECTURE FOR ANONYMOUS TRADING SYSTEM for which an application for United States Letters Patent was filed on June 23, 2000 as U.S. Application Serial No. 09/603,523; and


WHEREAS, Electronic Broking Services Limited, an English Limited Company having its principal place of business at 55-56 Lincolns Inn Fields, London WC2A 3LJ, ENGLAND, as assignee, is desirous of acquiring all right, title and interest in and to said invention and any Patent that may be granted therefor.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, We, as assignors, hereby sell, assign and set over to said assignee the entire right, title and interest for the United States and all other countries in and to said invention and the aforesaid application for Patent, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for ourselves and our legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said invention in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: \_\_\_\_\_

\_\_\_\_\_  
EDWARD R. HOWORKA

Date: 4-6-01


  
\_\_\_\_\_  
ANDREW P. FORAY

WHEREAS, We, Edward R. Howorka and Andrew P. Foray, as assignors, have invented certain improvements in ARCHITECTURE FOR ANONYMOUS TRADING SYSTEM for which an application for United States Letters Patent was filed on June 23, 2000 as U.S. Application Serial No. 09/603,523; and

WHEREAS, Electronic Broking Services Limited, an English Limited Company having its principal place of business at 55-56 Lincolns Inn Fields, London WC2A 3LJ, ENGLAND, as assignee, is desirous of acquiring all right, title and interest in and to said invention and any Patent that may be granted therefor.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, We, as assignors, hereby sell, assign and set over to said assignee the entire right, title and interest for the United States and all other countries in and to said invention and the aforesaid application for Patent, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for ourselves and our legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said invention in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: Apr 12, 2001

  
EDWARD R. HOWORKA

Date: \_\_\_\_\_

\_\_\_\_\_  
ANDREW P. FORAY



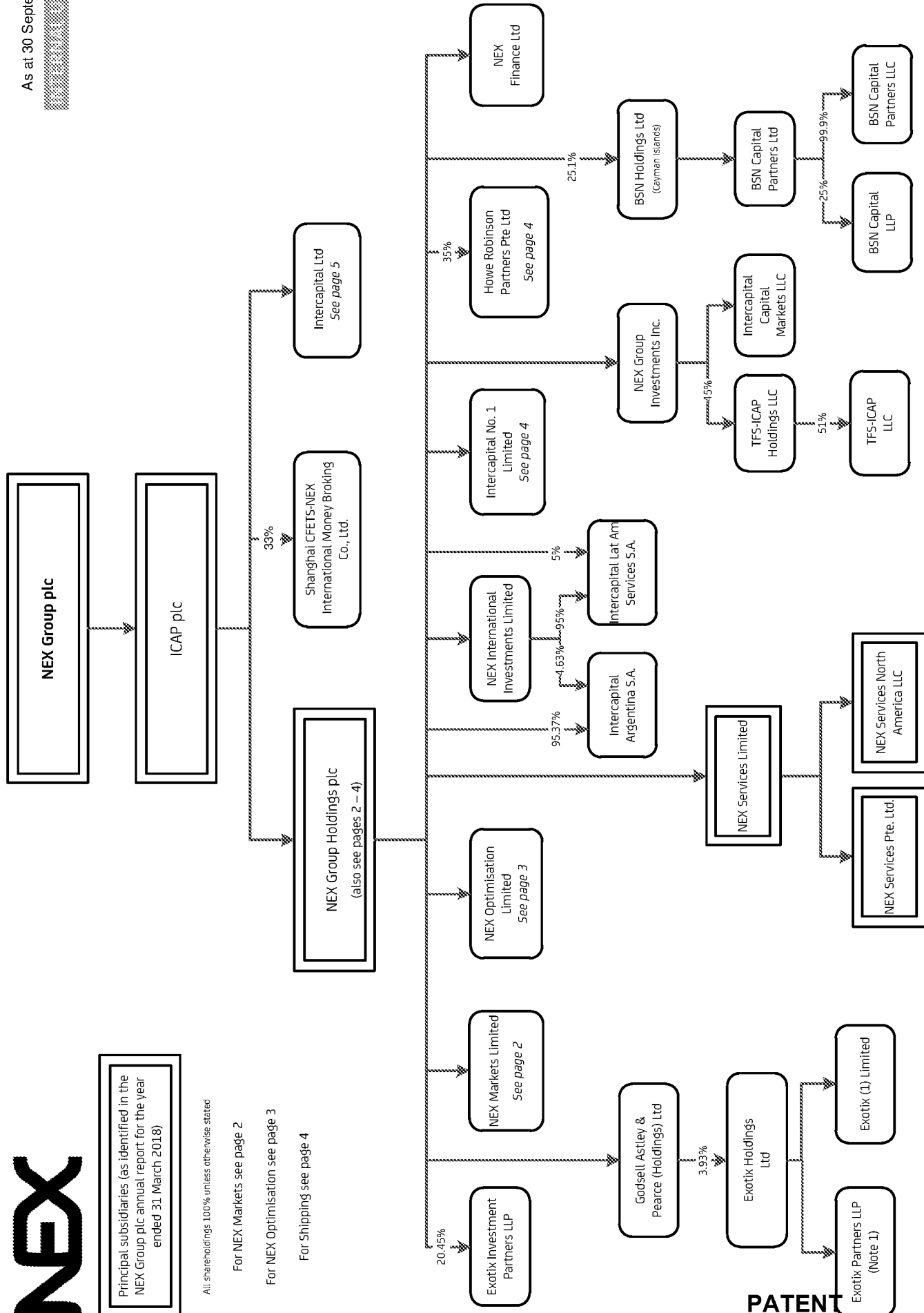
Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated

For NEX Markets see page 2

For NEX Optimisation see page 3

For Shipping see page 4



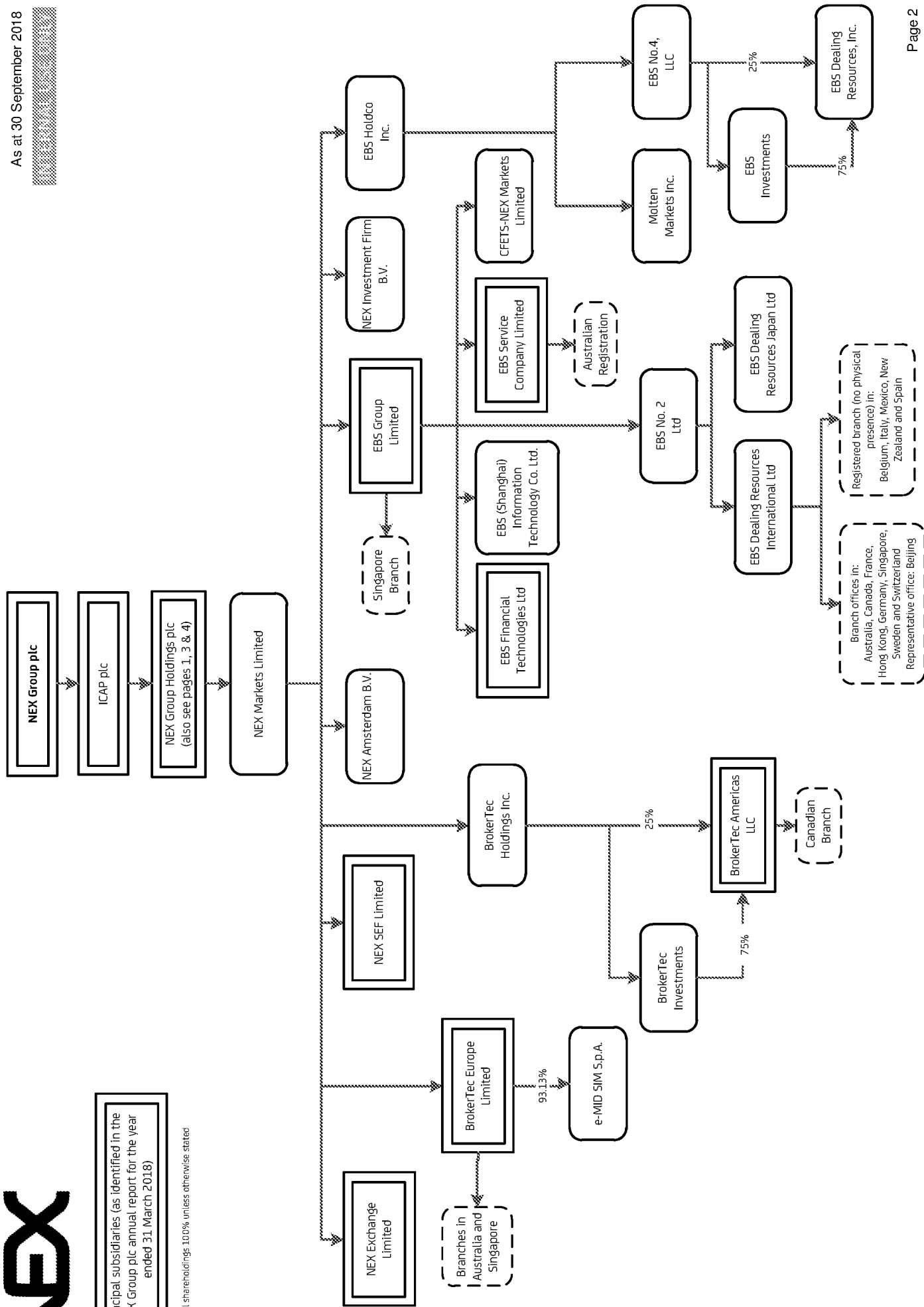
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Note 1: Exotix Limited holds one capital point in Exotix Partners LLP on trust for Exotix Holdings Limited.



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

All shareholdings 100% unless otherwise stated

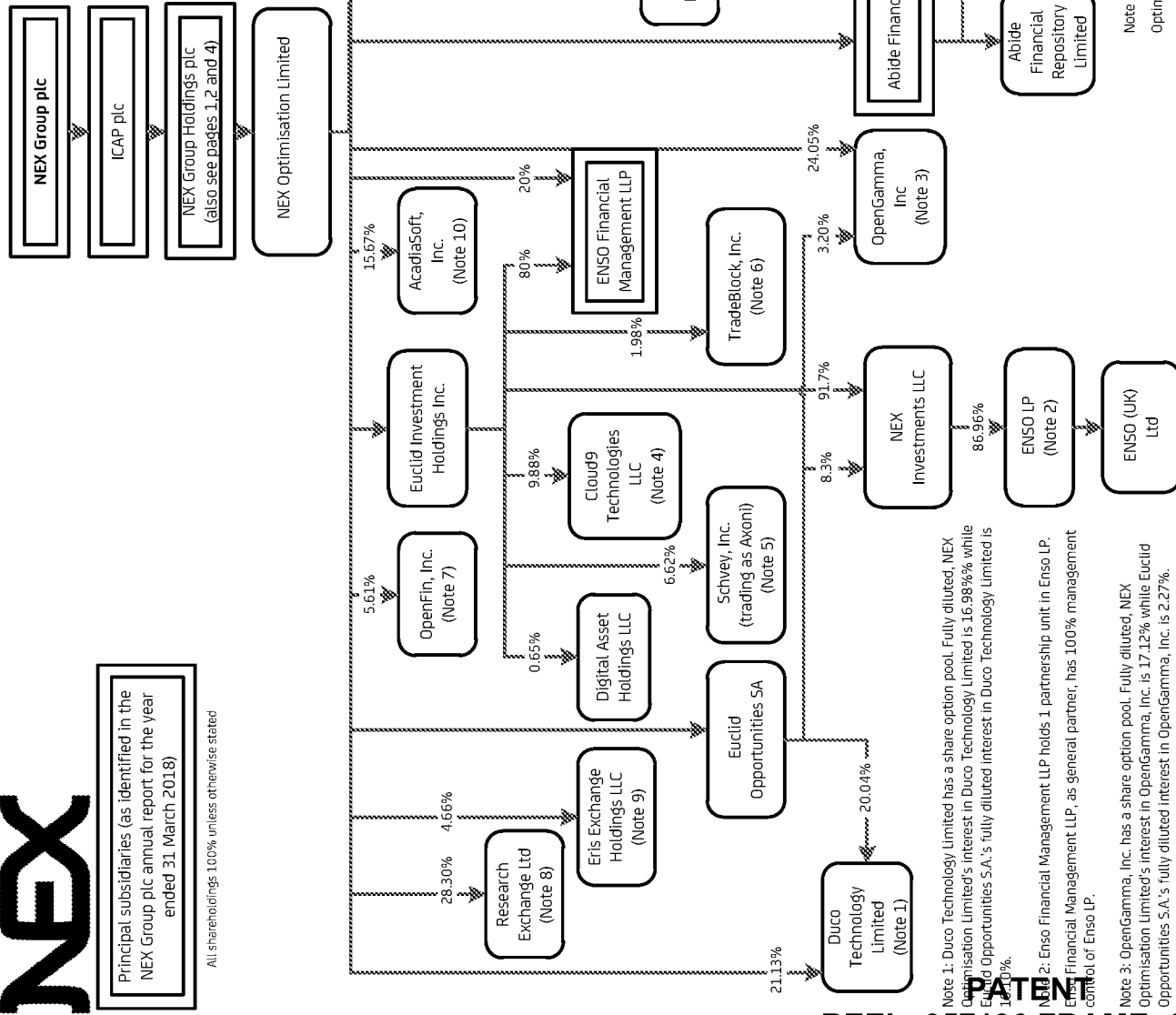






Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

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%.

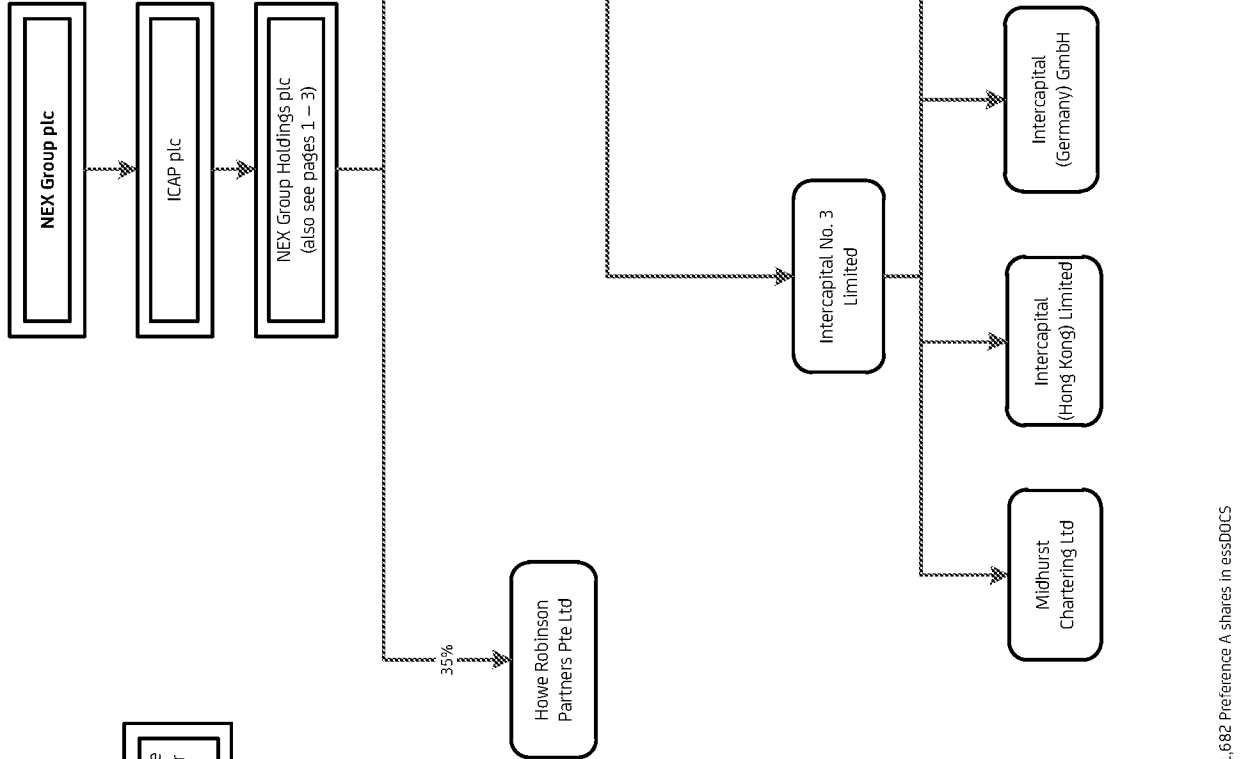
Note 8: Research Exchange Ltd has a share option pool. Fully diluted NEX Optimisation Limited's interest in Research Exchange Ltd is 26.32%.

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



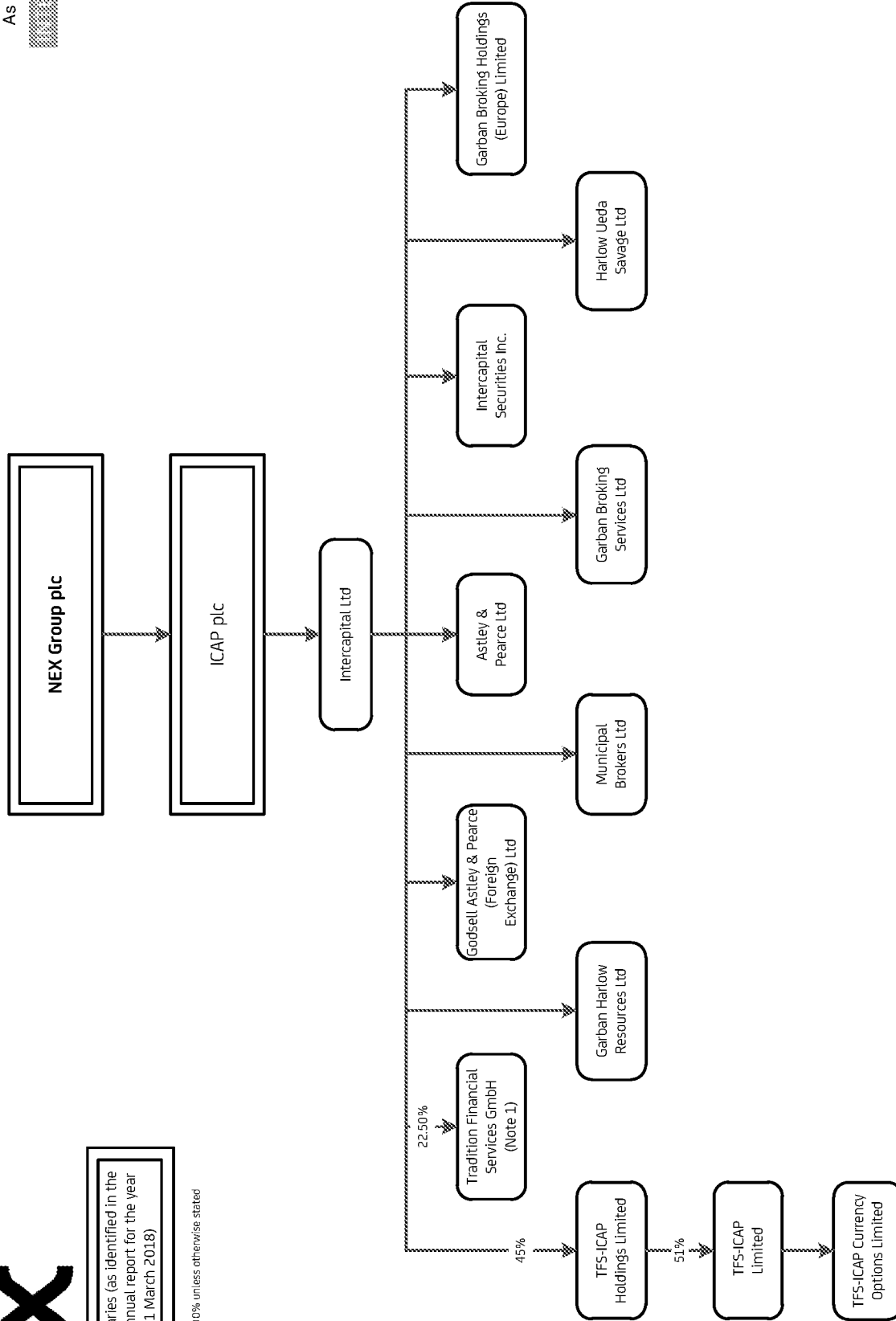
Note 1: Intercapital No. 1 Limited holds 11,682 Preference A shares in essDOCS Limited.

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.