

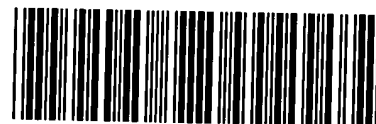
Benchmark  
Holdings plc

# **Harnessing biological control to drive sustainable growth**

**ANNUAL REPORT 2016**

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COMPANIES HOUSE

## **BIOTECHNOLOGY WILL DRIVE THE BLUE REVOLUTION**

As the world wrestles with the challenge of feeding a vast and growing population, there is an urgent need to professionalise and modernise aquaculture. Oceans cover 70% of the world's surface, but only produce 2% of our food, making the aquaculture industry the fastest growing form of protein production.

With 90% of the Company now involved in aquaculture, Benchmark is at the forefront of the 'Blue Revolution' offering an integrated package of products and services to customers in over 70 countries. Benchmark's customers are increasingly recognising the significant value this can deliver in terms of driving their productivity, sustainability and profitability.

### **Registered office:**

Benchmark Holdings plc  
Benchmark House  
8 Smithy Wood Drive  
Sheffield S35 1QN  
Registered number: 04115910

## 2016 HIGHLIGHTS

£m	2016	2015
Revenue	109.4	44.2
EBITDA from Trading Activities <sup>1</sup>	22.3	2.4
Adjusted EBITDA <sup>2</sup>	9.2	(5.7)
Operating loss	(20.5)	(11.6)
Basic loss per share (pence)	(4.39)	(5.96)
Net cash	0.4	13.4

### Operational Highlights

- Integration of INVE acquisition on track, synergies delivered with Benchmark Group include
  - First sales of new aquaculture vaccine for sea bass achieved
  - First major tilapia breeding programme in Asia for Spring Genetics secured post period end
- Bolt-on acquisition of world leading shrimp breeding programme in Colombia
- Adverse environmental factors mitigated by diversified Group portfolio
- £16m investment in state-of-the-art vaccine manufacturing facility in Braintree in commissioning phase, first commercial batches expected in H2 FY 2017
- Constructing new year-round, land-based salmon egg production unit in Norway which will increase salmon ova production capacity by 37.5%
- Ten year contract with top three global salmon producer supplying genetic material, breeding selection services and health support
- Pipeline of products continues to progress well
  - Eight products developed entirely in-house in final regulatory approval or have achieved first sales
  - Current product pipeline of 94 products with an addressable market of £783m

### Financial Highlights

- Acquisition of INVE Aquaculture in December 2015 for US\$342m (c.£230m) created new Advanced Animal Nutrition division
  - Funded by £219m (gross) equity raise and US\$70m revolving credit facility
- INVE revenue of £55m in line with expectations
- Like for like<sup>3</sup> revenue up 20% to £30m (2015: £25m)
- Operating loss reflects
  - £12.9m expensed acquisition and integration costs related to INVE
  - £11.7m investment in expensed R&D (2015: £6.6m)
- £30.7m (gross) equity placing in August 2016 to fund capital projects and bolt-on acquisitions
- Cash and cash equivalents at period end of £38.1m (2015: £13.6m)

<sup>1</sup> EBITDA from Trading Activities — excludes costs relating to Investing Activities from reported IFRS numbers. Investing Activities comprise exceptional restructuring costs, acquisition costs, pre-operational expenses for new ventures and research and development expenditure.

<sup>2</sup> Adjusted EBITDA — EBITDA before exceptional and acquisition cost.

<sup>3</sup> Like for like — statutory IFRS results excluding businesses acquired in either 2016 or 2015 (principally including the Breeding and Genetics division and INVE).

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"I am pleased to announce that the Group has delivered a financial performance in line with the Board's expectations, in a transformational year. Our strategy of diversification has mitigated the impact of environmental headwinds such as the drought caused by El Niño and the temporary Chilean border closure. Our acquisition strategy has already begun to show its strategic worth, providing access to a wider client base and technical insight which is enhancing our existing suite of products, as well as an established distribution network into fast growing markets. We continue to execute our strategy of deploying world leading technology through established distribution channels into long-term growth markets.

As planned, we have been investing in manufacturing capacity this year in order to serve our fast growing portfolio of products, with our state-of-the-art plant in Braintree in its commissioning phase. This increased capacity will allow us to deliver our product pipeline which continues to progress well, with a number of products expected to enter commercialisation from 2017 to 2019. Seafood is becoming a more desirable and important component of diets across the world, driven by increasing health, wealth and the limitations of the current food chain. We are now the world's biggest player in aquaculture biotechnology, placing us at the forefront of this 'Blue Revolution'."

**Malcolm Pye**  
Chief Executive Officer

01

# Strategic Report

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## Setting a new benchmark for sustainable living — starting with food production

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**£13.2m**

Amount invested  
in R&D for FY16



**94**

Products in  
Benchmark's pipelines



**£783m**

Total pipeline  
addressable market



**70**

Serving customers  
in over 70 countries

## BENCHMARK AT A GLANCE

Our technology is at the forefront of our industry.  
Our people are right there next to the farmers.

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**884**

People

**27**

Countries

**5**

Continents

## WHAT WE DO

Benchmark challenges the status quo in aquaculture, agriculture and animal healthcare.

Since 2000 Benchmark has consistently worked to build a platform to serve its customers, helping farmers to take control of their biological environment through the combination of genetics, nutrition, health and knowledge services. Through its in-depth knowledge of animal biology Benchmark is able to tackle the key issues in the aquaculture, livestock and companion animal sectors.

Image left: Benchmark's vaccine manufacturing facility, Braintree UK

Image right: Benchmark's 1650-acre commercial research farm, Oxford UK

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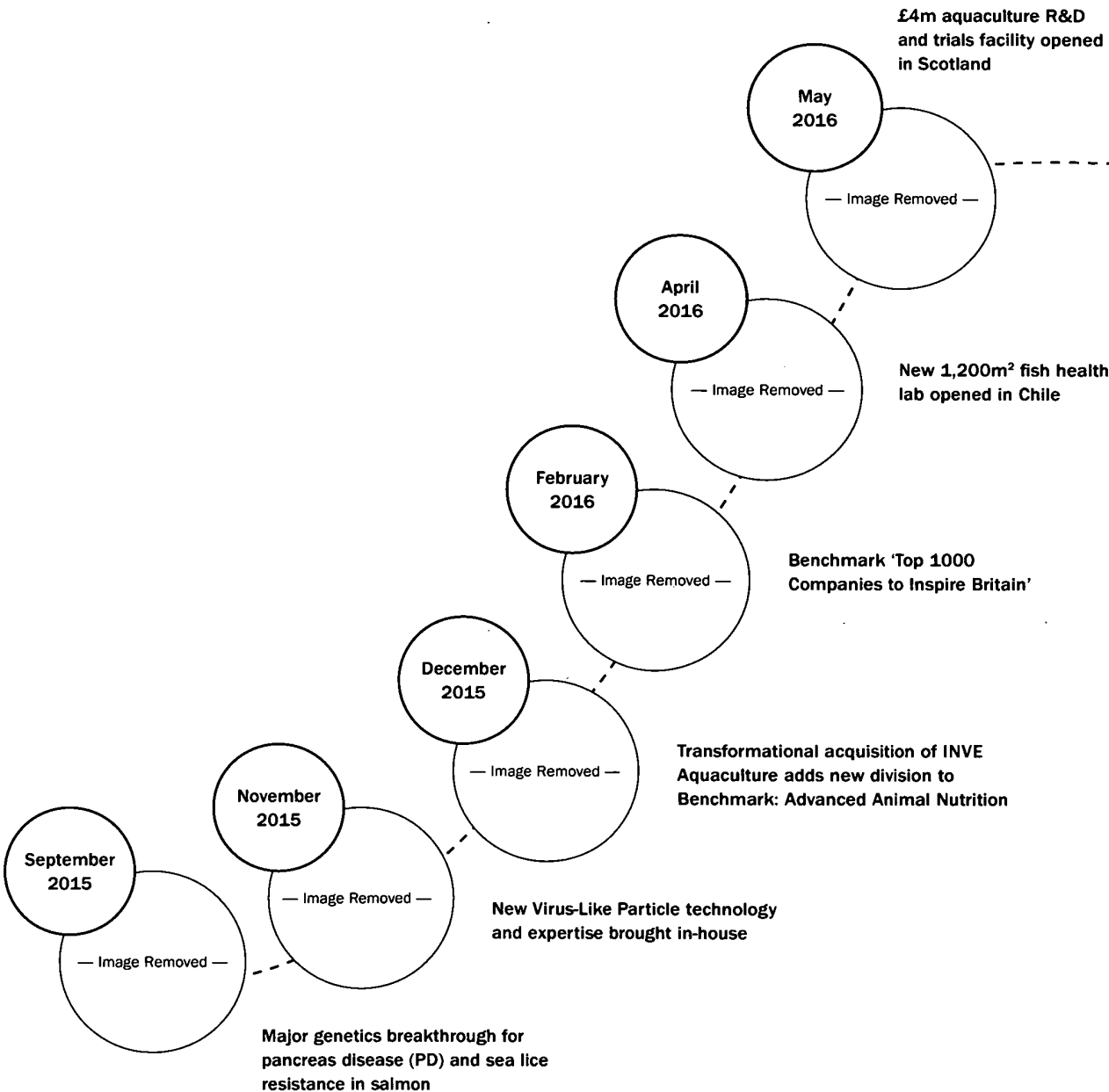
REALISING VALUE

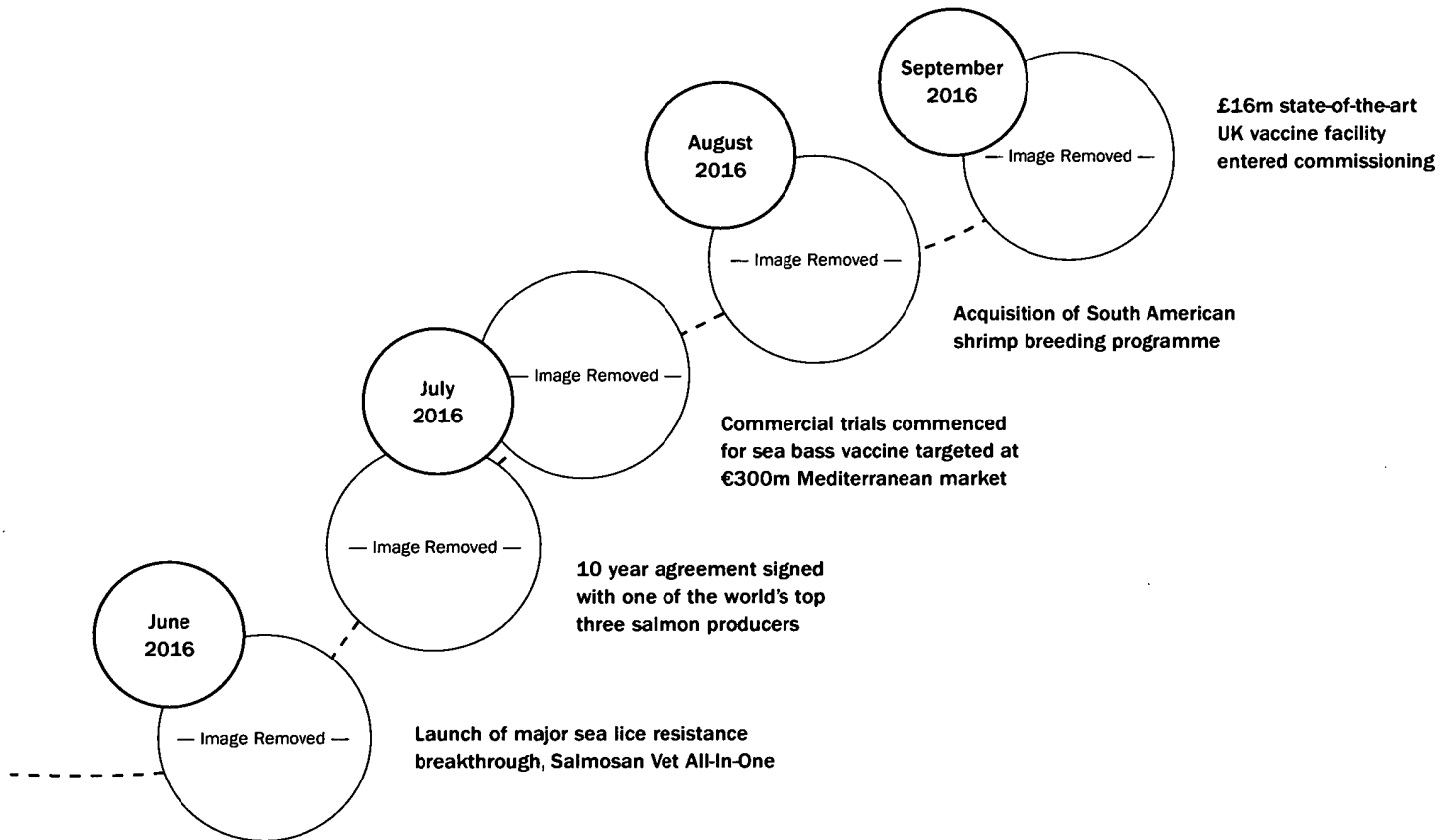
We realise value now by providing products and services urgently needed today, whilst investing in capacity and technology to solve the problems of tomorrow.

Our strategy is to achieve first-mover advantage in high growth markets and to tackle deep-rooted issues in more mature markets. We aim to take a leadership position in our chosen markets. We develop and sell innovative products rich in intellectual property that deliver high margins and visibility of earnings.

Our platform of capacity and technology is scalable, and combined with our deep insight into the challenges faced by major food producers, enables us to be confident that we will drive improvement in their profitability. By executing this strategy we will continue to build a business of significant value.

Here we highlight some of the key developments for Benchmark in the last 12 months, as we successfully implemented this strategy.





## Key Highlights

In September 2015 our Breeding and Genetics team in Norway achieved a major victory for pancreas disease (PD) and sea lice resistance in salmon using Genomic Selection. This was followed in June 2016 with the launch of Salmosan Vet All-In-One, a new treatment programme proven in trials to kill all stages of sea lice.

In November 2015 we secured an exclusive worldwide license from Saiba Animal Health GmbH to develop and commercialise a recombinant animal health vaccine using Virus Like-Particle (VLP) technology, building on our growing capabilities and supporting our strategy of driving innovation in animal health.

December 2015 concluded with a reverse takeover of world-leading nutrition specialist, INVE Aquaculture, adding our fifth and final business division. The deal was transformational, offering multiple synergies, cross-selling and new product opportunities as well as significantly increased distribution capability for the enlarged Group.

In April 2016 FishVet Group (FVG) — now the world's leading aquaculture health provider — opened a new state-of-the art diagnostic lab in Chile offering customers rapid-response to disease identification and on-farm clinical services. This was closely followed by the official opening of our £4m aquaculture research and development facility in Ardtoe, Scotland to drive advances for a variety of marine and freshwater species, shellfish and microalgae.

We secured a ten-year contract win in July 2016 to supply one of the world's top three salmon producers, Lerøy, with our salmon strains. In the same month, commercial field trials commenced for one of our new generation vaccines to treat Nodavirus, targeted at the Mediterranean sea bass market.

In August we expanded into shrimp breeding and genetics to meet the growing global demand for faster growing, more robust shrimp through the acquisition of a world-leading shrimp breeding programme in South America.

Our state-of-the-art vaccine facility in Braintree, UK, entered the commissioning phase following a £16m investment with first commercial batches expected in H2 FY2017. In Norway, construction began of SalmoBreed Salten, our new land-based salmon egg and broodstock production facility with a capacity to produce 150m eggs. This will replicate our highly successful land-based Icelandic model.

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**Alex Hambro,**  
Non-Executive Chairman

**CHAIRMAN'S  
STATEMENT**

Strategic Summary

The year ended 30 September 2016 was a transformative one for the Benchmark Group and saw us complete and consolidate our strategic platform; from genetics and egg production through to specialist nutrition and into the provision of veterinary services and health products for the global aquaculture sector.

As a result, Benchmark is now uniquely resourced and positioned to provide an integrated package of products and services that have the potential to unlock some of the key biological constraints which hold back our customers' production potential. The Group's technology platform of genetics, nutrition and health is supported by our technical knowledge, manufacturing and research capabilities. This combination enables us to have a significant market presence in the three key aquaculture species — salmon, tilapia and shrimp.

Our customers are increasingly recognising the significant value that Benchmark's technology platform can deliver in terms of driving their productivity, profitability and sustainability.

The Group is focussing on delivering the many top line synergies arising from building this platform. In particular, we are concentrating on growing sales and market share in developing markets and actively exploring routes to market and strategic relationships in these regions. Furthermore, we are set to continue to execute our strategy of making value-enhancing bolt-on acquisitions, and investing in some important strategic joint ventures to deliver significant synergies and sales growth.

## Results

During the year revenue grew substantially to £109.4m (2015: £44.2m). This was primarily as a result of the acquisition of INVE Aquaculture in December 2015 and the recovery of Salmosan sales and demonstrates that the business is beginning to scale. Full details of the Group's earnings, cash flow and financial position are set out in the FY16 Financial Review on pages 48 to 55. The Group made an operating loss of £20.5m, this was principally due to increased investment in R&D, significant acquisition-related expenses arising from the INVE acquisition and higher amortisation. These items offset an improved operating performance in the Animal Health division and the results of the profitable, newly-formed Advanced Animal Nutrition division. EBITDA before exceptional expenditure and acquisition-related costs was £9.2m compared with a loss of £5.7m last year.

## Summary of Activities

The acquisition of INVE Aquaculture, a leading specialist manufacturer of primary stage, technically advanced nutrition and health products for aquaculture, was the most transformative event of the year and, indeed, of the Company's history. This transaction has enabled Benchmark to offer a comprehensive range of products and services to our key markets and has significantly advanced our goal to bridge the sustainable food production gap. The acquisition has also opened up enhanced distribution opportunities for Benchmark's suite of products across its other divisions through INVE's existing network.

The INVE acquisition necessitated a substantial equity fundraise in conjunction with committed banking arrangements and facilities that will support the important capital expenditure projects and joint venture opportunities as we grow. As a result, our balance sheet has been transformed and we have cash resources *in situ* to provide the flexibility we need to capture the opportunities we currently see. As well as the INVE fundraise, we also raised a small amount of equity in the summer of 2016 which allowed a supportive, strategic investor to gain a meaningful interest in the business. The £30m of capital raised at the time has allowed us to fully fund SalmoBreed Salten which is critical to consolidating some of our long-term salmon farming relationships and also to buy a world-leading shrimp breeding programme from Ceniagua. This acquisition was completed in August, and together with INVE, provides us with important opportunities in the rapidly-growing global shrimp market and penetration into the key geographies of Latin America and South East Asia.

Whilst this fundraise was done when the share price was relatively low, we believe that the small amount of the raise, coupled with the strategic benefits the new shareholder brings us, justified the transaction. I'm pleased that the share price has recovered since the middle of the year as the market has become more aware and familiar with the potential growth inherent in the Benchmark business strategy. Our Capital Markets communications day in November did much to bring the Benchmark business model to the attention of the investing institutions and we intend to repeat this exercise at regular intervals.

We have continued to invest in new and improved production facilities in order to secure supply of products, key to our future growth. The most significant examples are the new vaccine manufacturing facility in Braintree which has entered the commissioning phase, and the previously mentioned SalmoBreed Salten project where work has commenced to build a new salmon egg production unit in Norway which will increase our production capacity by 37.5%. Both of these projects are explained in more detail on pages 34 and 26.

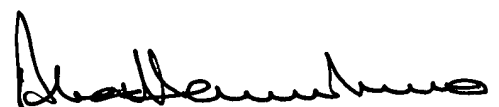
## Outlook

The long-term drivers of growth in our sectors, including the growing global demand for aquaculture products, which we expect to grow at around 5% per annum, will continue to benefit Benchmark for many years to come. In addition to capturing the opportunities for the products and services we have today, an important driver of our organic growth will be the delivery of commercial sales from our robust pipeline of new products and, although the exact timing of new product launches is difficult to predict, an increasing number of these are expected to come to market during 2017 to 2019.

The current year has started in line with the Board's expectations with some continued softness in the Asian shrimp farming market occasioned by the disease challenges faced by producers there. We expect this to recover once these challenges are met, however the exact timing of the predicted uplift remains uncertain. At the same time the salmon farming market which represents more than a third of Benchmark's business is experiencing record high prices which look likely to be sustained. With new markets and customers opening up as our integrated offering becomes more familiar to the participants in the global 'Blue Revolution', we look forward to the future with great confidence.

The Hon. Alexander Hambro  
Chairman

24 January 2017



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**Malcolm Pye,**  
Chief Executive Officer

## **STRATEGIC REVIEW**

### **In Summary**

Benchmark delivered a solid performance, in a challenging but transformational year defined by our investment in the future of the business.

Through the acquisition of INVE Aquaculture in December 2015, we now have a platform to serve customers in over 70 countries and a superb route to market in the southern hemisphere and its fast-growing markets. Benchmark's global distribution network in aquaculture, coupled with our comprehensive IP-rich technology portfolio, gives us an unrivalled offering. We remain focused on growing sales and market share in developing markets, including China, for our Genetics and Nutrition businesses, and are actively exploring routes to market and strategic relationships in those regions.

## Delivering Core Strategy

Since Benchmark was founded in 2000 to set a new standard for sustainable living, the key issues at stake remain the same — food production is still the largest polluter and water/energy consumer on the planet. The food industry will have to evolve in order to cope with a huge increase in population to approximately 9.7bn by 2050 (UN), requiring an increase in protein production of between 40% and 70%.

An increase in the production and efficiencies of farmed land animals will meet some of this demand, however much of the gains in production have already been optimised for terrestrial animals, and wild marine fisheries are expected to meet maximum production capacity of 93m tonnes by 2030. The World Bank in their report 'Fish to 2030' (2013), projected that aquaculture will continue to fill the supply-demand gap, and that by 2030 62% of fish for human consumption will come from this industry. We view considerable opportunity in the fact that much of the aquaculture industry is still relatively nascent, with significant room for improvement in terms of industrialisation and best practice.

With 90% of the Company now involved in aquaculture, Benchmark is at the forefront of the 'Blue Revolution'. Our integrated package of both products and services is being increasingly recognised by our customers for the significant value that this can deliver in terms of driving their productivity, profitability and sustainability. However, the challenges our customers face do not stand still and we are therefore committed to continuing our investment in Benchmark's technology portfolio and our in-market technical services for the products we sell today.

We have built a platform which can best serve our customers, helping farmers to take control of their biological environment through the combination of genetics, nutrition, health and knowledge services. We are delivering this by:

- Harnessing the best expertise
- Deploying cutting edge technologies
- Being embedded alongside our customers

More detail is provided on how we are achieving this in the FY16 Business Review.

## Acquisitions and Integration

At the end of December 2015, INVE Aquaculture joined the Group, adding advanced nutrition to our offering and largely completing the building of Benchmark's technology platform and operating structure. Integration is on schedule, with the key account management programme progressing well and allowing us to identify and deliver the synergies. Work on the first co-developed products is well underway, and INVE's distribution network has already proved beneficial for other existing Group products.

We continue to exploit the many synergies across INVE and Benchmark and expect to see increasing opportunities as new production challenges present themselves that require multi-faceted solutions in the aquaculture, agriculture and animal healthcare industries.

In August 2016, we strengthened our genetics offering through the acquisition of an established and leading South American shrimp breeding programme which enabled us to take the lead on pathogen-resistant shrimp and added the third major aquaculture species shrimp to our already strong aquaculture breeding business in salmon and tilapia. This has enabled us to increase our market penetration into the fast-growing global shrimp industry, which is seeing strong and growing customer demand for disease resilient stock. Our physical presence in the region also enhances penetration into the South American market for our wider suite of products.

## Challenges

The ongoing effect of El Niño and disease challenges in South East Asia and Latin America, coupled with low market prices in the shrimp sector, is resulting in delayed sector investment and lower growth rates in the short-term in both regions. The unexpected border closure in Chile also impacted sales for salmon eggs. This has to some extent been offset by our ability to grow sales in other developing markets and now that the border has reopened we are starting to recover sales in Chile. The strong US dollar against many other currencies has also negatively affected trading in some markets where our products are priced in dollars, in particular Latin America.

## Our People

We are a technology and innovation-driven company, which means our success is driven by having very high calibre, skilled and driven people at every level of the business. During the year we have secured some extremely high quality people, particularly within our health, nutrition and breeding and genetics divisions. We are already seeing the positive impacts of these new appointments in their areas of the business, with many joining from major industry players.

I am immensely proud of our team's response to our fast-paced acquisition strategy. We've acquired businesses with excellent management and like-minded teams that have similar values to Benchmark, which has made it easier to maintain and grow our culture whilst growing the business. INVE's integration into the Group has far exceeded our expectations, with the teams and workflows principally aligned and advancing the many opportunities available to us.

Our employees' passion and engagement makes a big contribution to the value we deliver to our customers and our success in the market. Our thanks go to all of Benchmark's people whose culture of hard work, commitment and enthusiasm has enabled the Group to deliver the noteworthy progress reported herein.

## What we can build upon

Aquaculture is a young industry with significant untapped potential to feed a growing global population. There is an urgent need to professionalise and modernise aquaculture. To meet this opportunity, we will advance our technology centre to drive progress in the areas of disease, growth, feed efficiency, and welfare as well as incorporating new vaccine, advanced nutrition, and genetic engineering technologies.

## The Future

Thanks to our highly supportive shareholders and strong income generation, we have the opportunity, the platform, the technology and the team to grow our sustainable business, supporting a healthier, more sustainable future for food production. We have a major growth opportunity ahead of us in aquaculture and sustainable food production technology and we are uniquely well placed to deliver that exciting prospect.

## MARKET OPPORTUNITIES

There is a strong demand for Benchmark's unique integrated package of genetics, nutrition, health and knowledge services to unlock production constraints and boost efficiency.

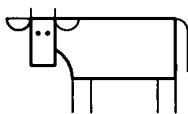
Demand for animal protein is rising

Disease, animal health and welfare are becoming a limiting factor to production

There is an urgent need to reduce reliance on antibiotics

There is an increased need for professionalisation

By 2050 global production is expected to increase by...



**67%**

Beef\*



**71%**

Chicken\*



**90%**

Aquaculture\*

Aquaculture is growing globally across all key markets (currently \$119bn global market\*)

▀ Seafood consumption is increasing rapidly driven by a growing middle class in developing countries and healthy eating trends in developed countries

▀ Farmed fish has now exceeded beef production, and all future growth in seafood supply is expected to come from aquaculture

\* Source: FAO.

## Aquaculture is growing globally across all key markets

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Source: FishStat, FAO.

\* CAGR refers to total market of 1950–2013.

### Emerging diseases drive demand for health products

- Disease has a significant impact on production volumes
- In the shrimp industry alone, 40% of production is lost to disease

### Animal health and human health are intrinsically linked

- c.60% of all human diseases and 75% of all emerging infectious diseases are zoonotic (passed between humans and animals)
- 13 deadliest of these diseases kill 2.2m people a year

### Efficiency benefits trigger industry consolidation

- Aquaculture is still a nascent industry
- Modernisation will help in production

### Global market statistics



† Management estimates.

‡ Inocap.

\$ Within the estimated \$92–102bn animal health industry (includes diagnostics, medicated feed and veterinary services) (Source: Vetnosis).



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**Roland Bonney,**  
Chief Operating Officer

**FY16  
BUSINESS REVIEW**

In Summary

The Group has transformed since the IPO in December 2013. We have invested £304m in M&A, adding two new business units: Nutrition and Genetics to our existing platform.

During 2016 the Group operational structure evolved into what we now call Benchmark's Technology Centre which recognises that nutrition, genetics and health, the markets served by three of our operating divisions, are supported and served by 'knowledge services' which encompasses the work of our Sustainability Science division and Technical Publishing division.

We have made significant progress this year in building our platform to completely serve our customers' needs and help them to take control of their biological environment. We have done this by harnessing the best expertise, deploying cutting edge technologies and embedding ourselves alongside our customers — with our hands in the water and our feet in the mud.

We outline in the following sections how the Benchmark Technology Centre is used to deliver this, and a review of our operations in the year.

**BENCHMARK  
TECHNOLOGY  
CENTRE**

Benchmark has built a platform which can best serve our customers, helping producers to take control of their biological environment through the combination of genetics, nutrition, health and knowledge services.

The various components of the Technology Centre are outlined overleaf.

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## KNOWLEDGE SERVICES

For informed management

For our customers, understanding the disease threats and determining livestock performance through optimised health, genetics and nutrition is essential to the productivity and sustainability of their business. We do this through cutting edge research and trials, and by deploying our globally-renowned team of specialists on a consultancy basis. Our team has been hand-selected for its unique insight and expertise.

Image left: Benchmark's 420-acre commercial research farm in Jaboticabal, São Paulo Brazil

Image right: Benchmark's aquaculture trials facility, Pisa Italy

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## How we are delivering our strategy

### Harnessing the best expertise

- Creating the best insight through globally recognised specialists, veterinarians, and food production experts
- Training the next generation of innovators through our work with Universities and CPD programmes
- Sharing best practice with customers in order to lift standards of production

### Deploying cutting edge technologies

- Taking aquaculture diagnostics into the digital age — Benchmark has transferred human cancer cell screening techniques into aquaculture for early disease identification
- Developing software platforms for tracking, clinical management and real-time analysis of supply — our histopathology team is available 24 hours a day in locations across the globe

### Embedded alongside our customers

- Integrated health management — directly involved in decision making alongside our customers
- At the coalface of aquaculture industry, allowing us unique insight and first mover advantage
- Long-term partnerships with blue-chip food chain companies, validating our position as a market leader

### At the front line

We have a breadth of experience across the aquaculture, agriculture and animal healthcare sectors. Our world-leading aquatic health business serves customers across the entirety of the supply chain from farming, feed, pharma and processors. With 75 veterinarians and fish health professionals spanning four continents, we have prescribing veterinary surgeons in all of our key markets ensuring we are the first to respond to existing and new disease challenges.

### R&D capabilities

We continue to invest in our R&D capabilities to overcome the bottlenecks in development of an aquaculture industry which is particularly underserved due to a lack of trials facilities. To that end we now have trial facilities across the globe, from our flagship site in Ardtoe to warm water units in Thailand and Brazil. This allows us to test a myriad of treatments in a controlled environment and develop treatments and products entirely in-house.

Our product pipeline also continues to develop — we now have 94 products in our portfolio with an addressable market of over £780m.

**40% of Benchmark's animal health pipeline is currently exclusively being developed at our in-house facilities.**

### Benchmark's R&D sites

— accessing customers and markets worldwide

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## REVIEW OF OPERATIONS IN THE YEAR

### Knowledge Services — Sustainability Science and Technical Publishing Division

#### Trials commence at new aquaculture R&D facility

FAI Ardtoe, Benchmark's aquaculture R&D and trials unit, marked half a century of service to aquaculture in May 2016 by unveiling the new state-of-the-art facility. The site has been expanded to help overcome the bottlenecks in development caused by a lack of trial facilities in the aquaculture industry.

The trials unit is approved by the UK Home Office to undertake safety and infection trials and is expected to be accredited Good Laboratory Practice by the end of March 2017. The capacity that is available to us now means that we can run multiple trials for multiple species, at the same time and independently from one another — allowing us to develop the Benchmark pipeline faster.

#### R&D expansion into new species

FAI Brazil, Benchmark's established commercial agriculture research farm in São Paulo State, expanded its reach into warm water aquaculture this year by building a tilapia hatchery to support our genetics business. Tilapia is today the most farmed fish species in Brazil, and demand for this product outstrips production. In some regions, including São Paulo State, growth is predicted at 20% per year in the next 10 years, reaching 35 thousand metric tons per year.

Benchmark's tilapia hatchery is expected to produce 500,000 fingerlings per month and will be based upon our high-genetic-merit strains. We have built in greater capacity for fish health, feed and genetics trials to support our product portfolio and to help further instill knowledge into the South American industry to support future sustainable growth.

The key operational and strategic business activities are highlighted below.

#### Growing global influence

Benchmark's work extends to the end of the supply chain where we provide sustainable sourcing solutions to global food brands. This year FAI added two new major global brands to our list of consultancy clients: IKEA Food, the €1.6bn turnover food business of the IKEA Group, and Ferrero, one of the world's largest confectionery companies with an annual turnover of €9.5bn. FAI have secured three-year partnership agreements with both companies focused on driving progress on sustainability and animal welfare in key agricultural supply chains.

#### Growing industry expertise

The future success of the sectors we serve requires educated and skilled people equipped to navigate the challenges of sustainability. Benchmark continues to run a number of high-profile undergraduate and postgraduate aquaculture courses in collaboration with St Andrews University. This year we have seen a growth in numbers to over 50 students annually.

We have also expanded our veterinary offering, introducing new Continuing Professional Development (CPD) courses and training modules. Training vets also gives us access to people in the field who have knowledge of, and will provide an excellent network for spreading knowledge regarding new products in our companion animal pipeline.

#### Accelerating knowledge dissemination

##### Aquaculture UK

Benchmark hosted the biggest aquaculture show in the UK in May 2016, following the acquisition of the Aquaculture UK event in April 2015.

The conference was bigger and better than ever with over 130 exhibitors (2014: 112) from around the world showcasing the latest in aquaculture health and innovation and showed revenue growth of 64% compared to the 2014 event.

The sharing of knowledge, to further the growth of the aquaculture industry, is at the heart of the event. With this in mind, Benchmark expanded the seminar programme to cover topics such as the latest in breeding salmon with resistance to economically important diseases, seaweed farming technology and advances in fish health, biosecurity and sea lice control.

##### Official Veterinary Conference

Building on Benchmark's official veterinary (OVs) training and educational services for Defra (Department for Agriculture, Food and Rural Affairs), we launched a veterinary conference named 'Reducing the impact of notifiable animal diseases in the UK' which was attended by 250 delegates. The conference featured lecture streams for large animal, small animal and equine vets with topics ranging from new thinking on the eradication of bovine TB, the potential threat to UK pets from *Echinococcus multilocularis* and an update on avian influenza. Round table debates gave delegates a chance to put questions to speakers directly and an exhibition of the latest products and services for OVs ran alongside.

The conference was organised as a joint venture by Benchmark in association with government department APHA.

These platforms also give Benchmark first-hand insight into the challenges in the aquaculture, agriculture and animal health care sectors, giving us first mover advantage in our product development pipeline.

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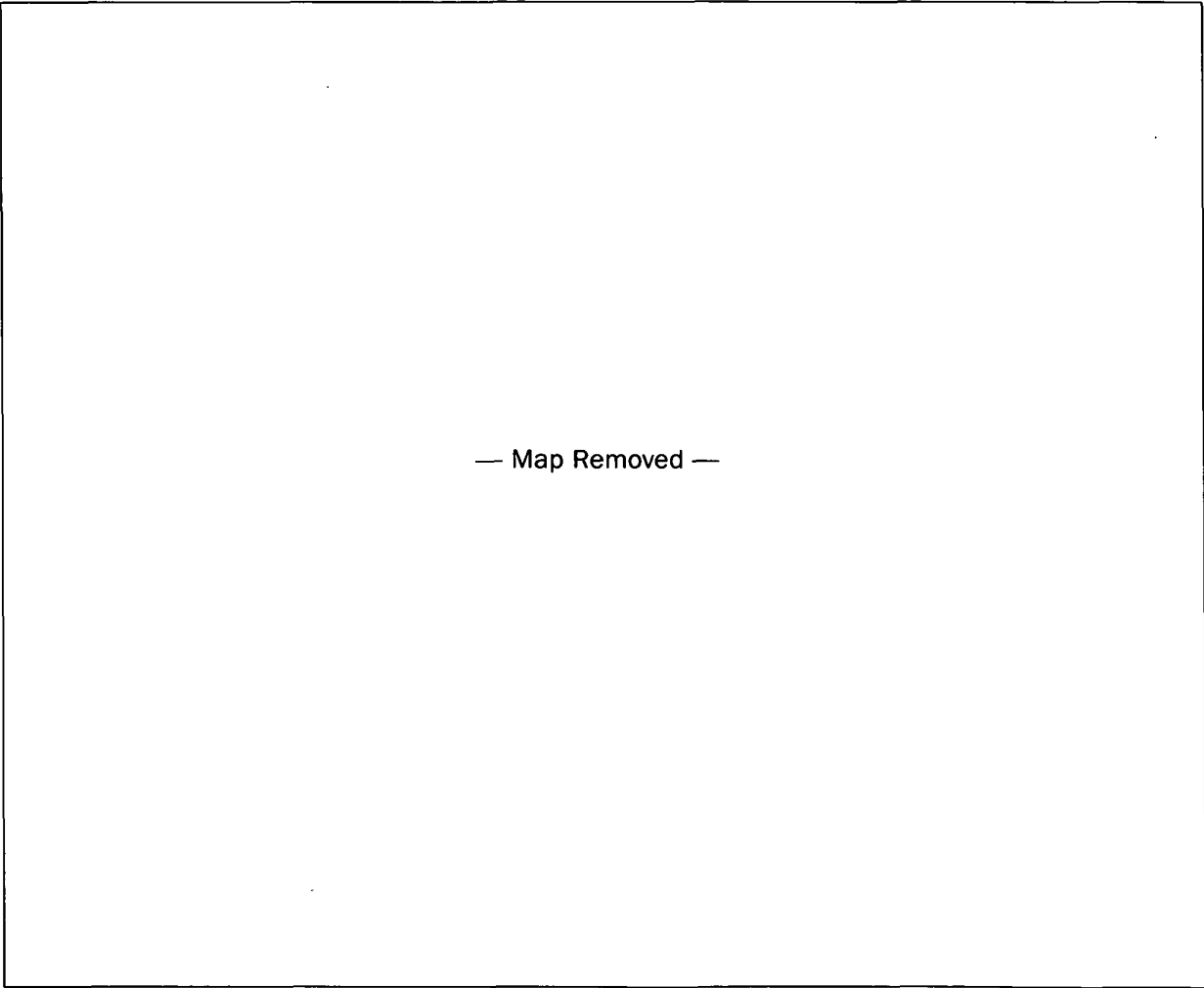
**GENETICS**

All farming starts with  
a choice of genetics

Benchmark carries out contract research and runs genetics programmes for a range of species, covering both established mature and emerging markets. These contracts are with some of the largest producers in the world. In addition, we run our own in-house primary breeding programmes with salmon, tilapia and shrimp.

Our robust genetic material, combined with our team’s insights into the key challenges facing our clients and partners, allows us to drive real improvements in production efficiency traits, disease resistance and product quality.

Current and historical R&D programmes



## How we are delivering our strategy

### Harnessing the best expertise

- Highly skilled and well-qualified aquaculture genetics team in a relatively niche industry
- World's largest genetics company on selective breeding programs for all aquaculture species
- Breadth of knowledge secures our position as world leader by number of species

### Deploying cutting edge technologies

- Specific genomic selection allows for increased trait selection accuracy
- Harnessing existing technologies and developing new solutions to transfer into new species
- Unique land-based biosecure production — all year-round delivery and back-up facilities

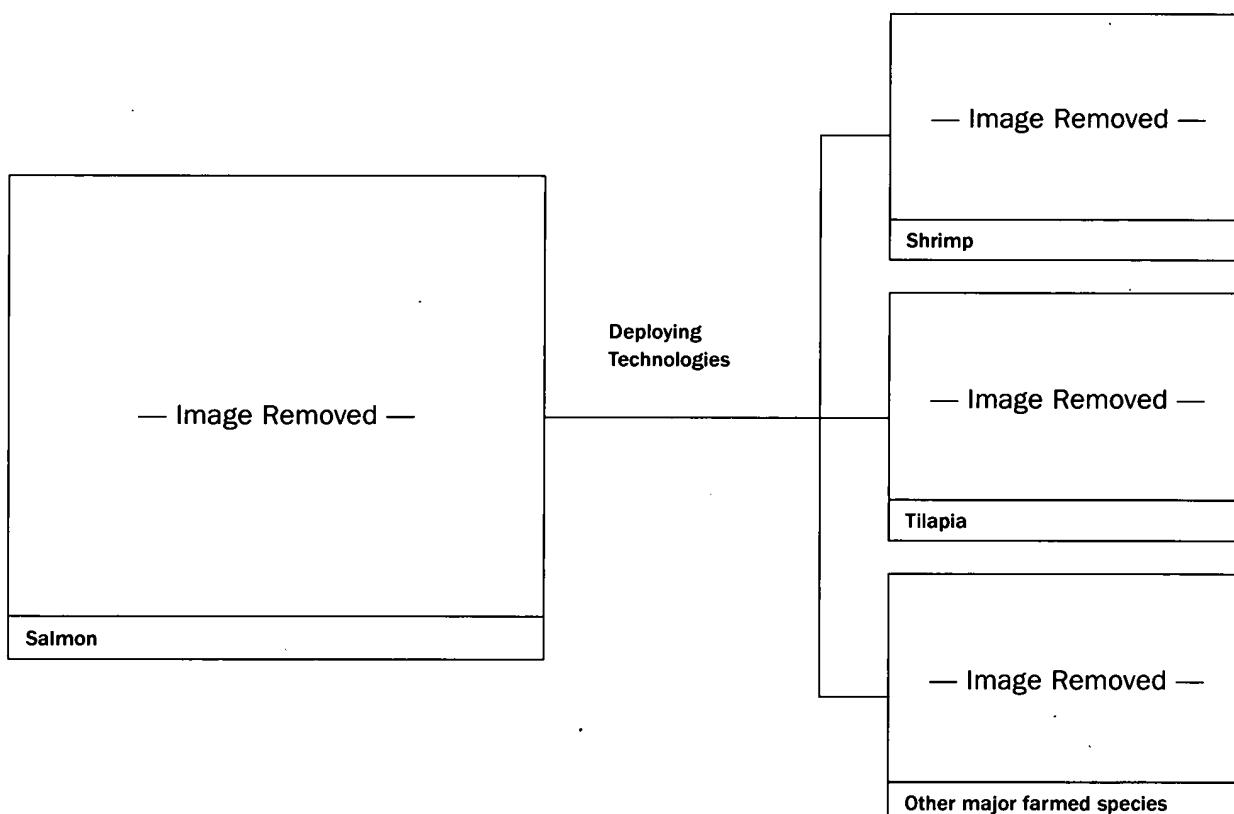
### Embedded alongside our customers

- Customer-led approach to delivery of all products and services
- Forming strategic partnerships with leading companies on their breeding facilities and genetics

## At the front line

Benchmark is deploying the expertise developed over 30 years of salmon selection into other aquaculture species. The barrier to entry for competitors is high, as it can take a number of years to develop robust and effective breeding lines.

Benchmark has access to extensive data sets and front line knowledge, giving us the unique ability to transfer genomic knowledge to different species. Our work is currently focused on major consumer species including salmon, tilapia, shrimp, and also species growing in importance including sea bass, sea bream, cobia, seriola and grouper.





## REVIEW OF OPERATIONS IN THE YEAR

### Breeding and Genetics Division

The key operational and strategic business activities are highlighted below.

#### Ground breaking research

**Major breakthrough in breeding for pancreas disease, sea lice resistance and Infectious salmon anemia (ISA)**

The team achieved a major breakthrough for pancreas disease (PD), sea lice resistance and infectious salmon anemia (ISA) in salmon, becoming the first salmon breeder to use new genomic technology — Genomic Selection — to breed PD, ISA and sea lice resistance into our fish. The use of the method will provide a significant advancement in resistance to PD, ISA and sea lice and hence significant savings for the industry.

**First tilapia breeding program worldwide selecting for improved resistance to *S. iniae* and *S. agalactiae***

Streptococcus infection is one of the most devastating diseases in tilapia farming as it can cause huge mortalities of large size fish and is responsible for heavy economic losses for farmers. Spring Genetics (US) recently launched a pioneering and complementary preventative approach, implementing selection for *S. iniae* and *S. agalactiae* resistance based on controlled challenge tests. Search for genetic markers is initiated.

#### Products in market

**Contract win — 10-year agreement with leading salmon producer**

In July 2016, Benchmark signed a 10-year agreement with Lerøy — one of the world's top three salmon producers — to supply our SalmoBreed genetic strain into its production sites. The contract represents an endorsement of SalmoBreed's ability to produce world-class salmon strains and is an encouraging collaboration with one of the largest producers in the industry.

**Lumpfish — Success in the Faroe Islands**

In 2016 StofnFiskur delivered 1.5m lumpfish to the Faroe Islands market. The production has been a proven success resulting in two of our clients not having used any treatment for sea lice other than lumpfish this year. The lumpfish have high survival rates after transport from Iceland and immediately commence feeding on sea lice when introduced to the salmon cages.

#### Expansion into new species

**World-leading marine shrimp breeding programme brought in-house**

In response to the strong and globally growing customer demand for disease resilient shrimp, we acquired a South American *L. vannamei* shrimp breeding programme in August 2016 that has bred populations with high levels of resistance to some of the major diseases affecting the shrimp industry worldwide. This allows us the opportunity to cross-sell shrimp genetics alongside our existing nutrition and health products.

#### Increasing capacity

In September construction commenced of SalmoBreed Salten, the land-based salmon broodstock and egg production facility in Norway. The 10,000 square metre unit replicates our successful onshore facility in Iceland. The new site will give us the ability to hold broodstock on land throughout the production cycle and the capacity to produce 150m eggs per year for delivery all year round. The project was funded by the most recent fundraise in August 2016.

#### Breeding and Genetics — Product Pipeline

We have 18 products in our Breeding and Genetics pipeline with a total addressable market value of £95m.

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**Image:** Benchmark's tilapia breeding facility, Miami, USA.  
Harvesting a commercial performance trial to generate growth data for the Company's tilapia strain

NUTRITION

Caring for growth requires optimum nutrition

Advanced animal nutrition has strengthened our existing health and genetics offerings to drive performance and consistency of production.

By knowing, understanding, and inducing key biological processes at the earliest stages of the life cycle we can unlock the innate potential of survivability, development and growth. Our innovations and protocols have a proven added value in hundreds of farms and hatcheries worldwide.

At the front line

We are market driven and science based. Our market intelligence from the front line reveals our customers' practical needs. Coupled with 33 years of in-house expertise and collaborations with 25 centres of excellence, we are able to deliver bespoke solutions for any customer.

We have developed a rigorous approach to caring for animals. We offer a products and solutions portfolio based on the essential principles of care in the life cycle of fish and shrimp. We support hatcheries and farms worldwide with concepts, best practices and technologies that ultimately improve their bottom line.

Customer partnerships

We strongly believe that the only way to shape the future is to do it in close collaboration and partnership with the market. We serve our customers globally with the industry's most comprehensive product portfolios.

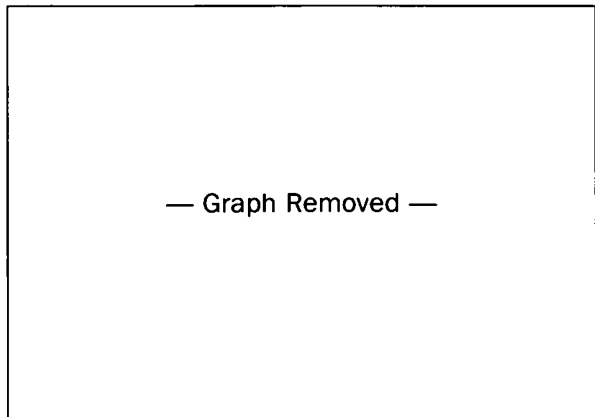
We are able to support them in taking better care throughout the life cycle of their fish and/or shrimp by contributing on a daily basis. This contributes to both our clients' sustainable growth and long-term financial success.

Operational excellence

Upholding our reputation for innovation and consistency, we continuously develop and market products that are used as benchmarks in the industry. From raw material to the finished product, we want to ensure that the highest quality standards are met consistently. Our high-end products are developed, tested and manufactured in-house at our state-of-the-art facilities to certified GMP, HACCP and Global GAP manufacturing standards, enabling higher-throughput, lower costs, shorter lead times and a more reliable supply chain.

To guarantee that our products will work under commercial conditions, our testing centres operate real-life hatchery production cycles for fish and shrimp.

Benchmark's shrimp hatchery feeds drive consistency & profitability



Benefits for farmers using the INVE feeding protocol (including FRIPPAK) increased by \$2,464 per production unit producing 1m post larvae (PL) 15.2 times per year†

Absolute values (\$/production unit/year)			
Cost item		Protocol	
		Control	INVE
Total costs	-6.8%	18,459	17,212
Total revenue	+4.2%	29,200	30,417
Total margin	+22.2%	10,741	13,205
Production runs/year		14.6	15.2

\* A production unit produces 1m PL per run.  
† Results were obtained over 18 months in hatcheries in Vietnam, Thailand, Ecuador (2), Nicaragua and Mexico.

## How we are delivering our strategy

### Harnessing the best expertise

- Our status as a world-leading advanced animal nutrition provider stems from our ability to create and provide high-tech, high-performance and cost-effective nutrition and health solutions
- This capability enables us to become our customers' preferred partner, maintaining those relationships over the long-term

### Deploying cutting edge technologies

- Employing a multi-disciplinary approach, allowing for greater insight and adaptability when faced with new problems
- Focussing on manufacturing efficiencies which results in higher throughput, lower cost and shorter lead times
- Innovation is our driver

### Embedded alongside our customers

- INVE pioneered early-life-stage nutrition and innovated hatchery nutrition hand-in-hand with forerunners of marine fish and shrimp farming
- Customer partnership and collaboration, combined with the best expertise in the sector, results in customer loyalty and market leadership

## Locations and facilities — operations and supply chain

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## REVIEW OF OPERATIONS IN THE YEAR

### Advanced Animal Nutrition Division

The key operational and strategic business activities are highlighted below.

#### Integration progressing well

Benchmark acquired INVE on 31 December 2015 to strengthen its aquaculture offering and ability to provide a complete solution to producers through the combination of genetics, health and nutrition. The acquisition has provided Benchmark with scale, enhanced sales, marketing and distribution networks, together with aquaculture nutrition expertise to facilitate further pipeline development.

A major focus during 2016 has been the development and delivery of the synergies between Benchmark and INVE including:

- Sales and marketing infrastructure to launch aquaculture vaccines: INVE sells to customers in more than 70 countries and has direct sales and marketing in 16 countries. This provides opportunity to leverage this infrastructure to sell aquaculture animal health products. The business has helped facilitate ongoing commercial field trials of Benchmark's first proprietary aquaculture vaccine, which is for sea bass

- Shrimp genetics: The purchase of one of the world's leading South American shrimp breeding programmes mentioned above opened another major arena for us cross-selling shrimp genetics to our established nutrition customer base

We expect continued demand for high quality early nutrition and health products boosted by favourable artemia pricing as a scarce resource.

#### Products in market

##### Artemia

Artemia generates nearly 60% of Benchmark's Advanced Animal Nutrition product sales (and gross margin). Around 3,000 tonnes of artemia is produced annually of which Benchmark has access to 600 tonnes, or 20% of the global market. The highest quality artemia available is from the Great Salt Lake, Utah, USA and Benchmark sources the majority of its artemia on a contracted basis from the Great Salt Lake Brine Shrimp Co-operative. The price of artemia has doubled over the past decade reflecting the increasing demand in aquaculture, against a limited natural supply of product.

In response to this, Benchmark are investing in alternative early-stage feed to be used independently or in conjunction with natural artemia.

##### Artemia replacements

Alternatives or supplements to artemia are required in order to support the predicted future growth of aquaculture. In addition to our product feeding protocol 'Best Balance' that replaces c.85% of natural artemia, we are investing in a product that replaces 100% with equal or better survival rates and grow-out performance at a significantly lower cost, which is on schedule for first sales in 2020.

##### Health products

Benchmark's health products cover all stages of production for shrimp and fish. We sell nutraceuticals (health boosters) to strengthen the immune system and probiotics designed to improve digestion and feed conversion ratio (FCR). We also offer product ranges such as Sanolife and Sanocare which are globally recognised for their effectiveness against a wide range of aquaculture pathogens, creating a more biosecure environment for the animals.

#### Advanced Animal Nutrition — Product Pipeline

Our Advanced Animal Nutrition pipeline has an addressable market size of £70m, with development through to commercialisation typically taking between 3–4 years for nutrition products. We have a long history of successful innovation and new product launches.

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**HEALTH**

Healthy growth  
drives efficiency

The health and welfare of animals is at the heart of a thriving and sustainable food chain. A healthy animal delivers healthy growth.

Disease is a significant barrier to sustainable production. For example, disease and parasites are the largest restriction on the growth of aquaculture. Benchmark is investing in new animal healthcare technologies to solve major production challenges in aquaculture, agriculture and animal healthcare.

Image: Benchmark Vaccines, Braintree UK

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## How we are delivering our strategy

### Harnessing the best expertise

- A world-leading team of expert scientists with deep roots in pharmaceutical development — some having previously worked for some of the major players in the industry
- Leading research collaborations with prominent industry players to widen the net for discovery and mutual benefit

### Deploying cutting edge technologies

- Our innovative approach results in lower production costs and time to market
- Applying new, more efficient delivery technologies that result in optimised product performance for our customers
- Our range of business units means we can employ technology from one part of the Company to another, such as VLP delivery mechanisms

### Embedded alongside our customers

- Integrating our package of solutions to help customers achieve optimised production performance
- Customer focused health plans enable buy-in to a range of products throughout development

## At the front line

### Building the technology platform

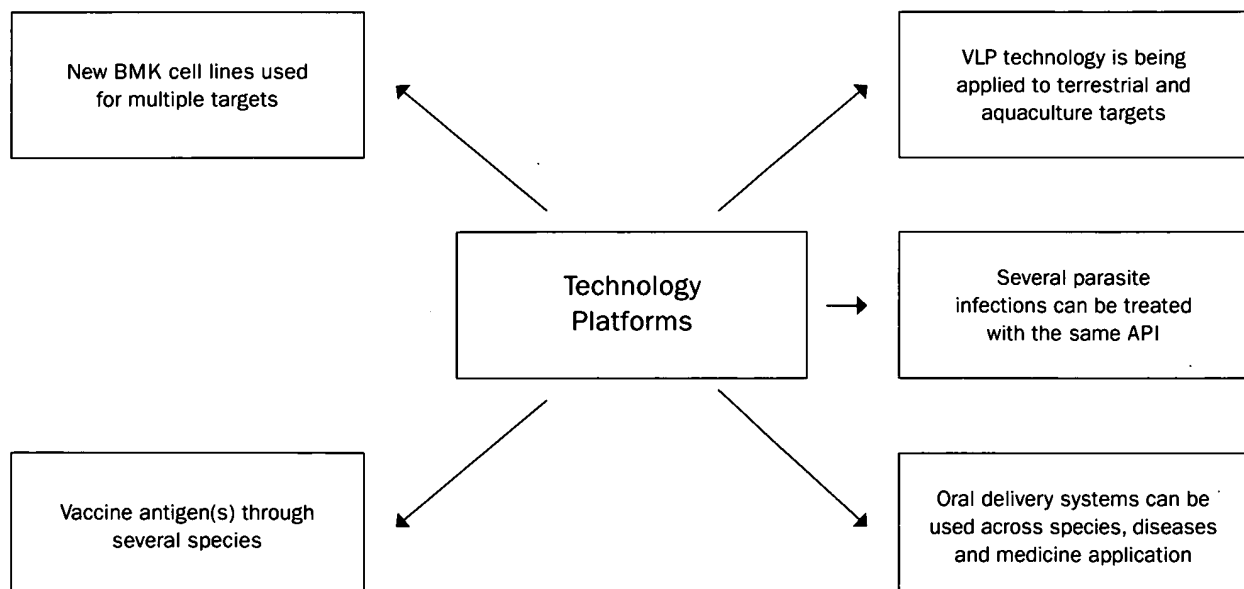
Our animal health pipeline includes 51 products with an addressable market value of over £600m, including a suite of vaccines and health solutions (see page 35). The technologies that we develop and harness within the Group can be transferred across species, maximising our impact across the aquaculture, agriculture and animal healthcare sectors.

### Manufacturing firepower

Benchmark has over 25 years' experience in the manufacture of aquaculture vaccines. We have recently expanded our capacity at our in-house vaccine manufacturing facility to meet demand.

The new £16m biotechnology building in Braintree with 2,500 square metres of production capability enables:

- Ultra-modern GMP (Good Manufacturing Practice)
- Seamless transition from R&D to production
- Improved efficiency and flexibility combining both conventional and recombinant vaccines, including Virus Like Particles (VLP)
- Third party manufacturing options providing short-term utilisation of any available surplus capacity





## REVIEW OF OPERATIONS IN THE YEAR

### Animal Health Division

The key operational and strategic business activities are highlighted below.

#### In-market product performance

##### Salmosan

Our leading product, Salmosan, generated c.£14m of sales in the period. Now launched in the UK, Norway, Canada and Chile, Group sales were impacted by generic competition in Chile during 2014/15, but we have managed to recover and stabilise our market share with Animal Health divisional revenues increasing by 18% in 2016, driven by Salmosan/Byelice sales. It should be noted that we expect demand for Salmosan to reduce over time as the product continues through its life cycle, as a result of generic competition and as new solutions to the sea lice challenge become available to the industry.

#### Product development progress

##### Commercial field trials commence

Our first vaccine to be entirely developed in-house commenced commercial field trials in July 2016. Targeted at the Mediterranean sea bass market to treat Nodavirus, this product represents a significant first for Benchmark as the full development process including research, design, development and manufacturing has been delivered entirely in-house by our specialist teams. This is the beginning of a new era of vaccine launches for the Group. We now have the platform and resources to take a leading position in our major markets to deliver new technology-driven vaccines and pharmaceuticals.

##### Virus Like Particle ('VLP') Technology

We are building on our growing capabilities for this ground-breaking technology supporting our strategy of driving innovation in animal health. The emerging technologies that we develop can be transferred and utilised in the aquaculture, agriculture and animal healthcare sectors.

HypoCat — Benchmark's VLP allergy vaccine which neutralises the Fel d 1 protein — the primary cause of human allergic reaction to cats is expected to launch in 2020, and we estimate a potential market worth of £165m per annum.

Canine Atopic Dermatitis — Benchmark secured an exclusive worldwide license to develop and commercialise a recombinant vaccine for Canine Atopic Dermatitis (CAD). This vaccine is planned to be the first truly effective preventative tool against CAD. Unlike other CAD treatments on the market such as steroids, antihistamines and immuno-suppressants, which typically require continuous application and in some cases can weaken the dog's immune system, this new vaccine would reduce the need for intervention and lessen the animals' susceptibility to infection and illness. With an estimated 152 million dogs in the US, Canada and Europe, the estimated total market value for treatment of the disease is over £1 billion per annum.

Sweet Itch — Benchmark entered into an agreement with Evax, a Swiss biotech company, to develop

a recombinant vaccine to prevent and treat the most prevalent skin disease caused by insect bite hypersensitivity reactions in horses — Sweet Itch. The estimated total market value for treatment of the disease is over £100m per annum. There is no licensed vaccine available, and we expect the first commercial product to be available in Europe/US/Canada in 2020/2021.

#### Entering new markets at the front line

FishVet Group (FVG) opened a new 1,200 square metre state-of-the-art diagnostic lab in Chile. The lab is currently the only aquaculture health facility in South America with histopathology and PCR capability under one roof, allowing us to provide producers with rapid response to disease identification and on-farm clinical services.

#### Building capacity

We have significantly enhanced our vaccine manufacturing capability through the investment of over £16m in our state-of-the-art vaccine antigen production facility at our established Braintree site. The facility is one of only a few EU Good Manufacturing Practice (GMP) sites for animal health vaccines in Europe with a range of key manufacturing processes and a secondary packaging service if required. The 2,500 square metre unit allows us to significantly scale-up our in-house product pipeline and expand our toll manufacturing capacity.

Benchmark animal healthcare brings benefits to production species from the earliest stages of development to table

Below is an example our technological strategies in the forms that we can develop and apply.

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### Animal Health — Product Pipeline

We have 51 products within our animal health pipeline of biocides, vaccines and paraciticides, with a total addressable market value of £618m. Of these there are 34 vaccine projects that can be manufactured at our newly upgraded facility in Braintree, UK.

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## **BUSINESS MODEL**

Biological control is a key driver for financial performance of producers in the food chain industry.

Benchmark's business model is centred around the production life cycle, deploying solutions and preventative technologies in the earliest stages of life in order to boost sustainability and long-term growth. The Group is able to charge prices for these solutions that deliver good attractive margins, but represent only a fraction of the savings delivered to farmers and producers.

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Below is a diagram of a typical aquaculture production life cycle, overlaid with examples of products and services in Benchmark's Technology Centre — effectively supporting producers in realising the profitable and sustainable production of high quality food.

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## GROWTH STORIES

# Vietnamese aquaculture — rapid growth of a booming micro-economy

Working closely with ambitious aquaculture entrepreneurs worldwide to improve production, Benchmark's Advanced Animal Nutrition division through INVE have witnessed many successes, innovations and breakthroughs. Below we feature the insight and experience of one of our partners.

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"Aquaculture produces food for millions of people. But in the first place, it is a livelihood for farmers and their families. By optimising local farmers' productivity, we have a tangible impact on their daily reality."

**Rudi Bijmens**  
INVE Regional Sales Director, Asia

Just like in many Asian countries, aquaculture in Vietnam is a booming micro-economy. Now providing almost half of the country's seafood, the aquaculture industry has grown into one of the most important sources of revenue for the local population.

### Viet-Uc, Mekong Delta, Vietnam

One of the best-known growth stories in Vietnamese aquaculture is shrimp producing company, Viet-Uc. The business, run by entrepreneur Mr Van Thanh Luong, has set up the world's largest shrimp hatchery producing 15bn post larvae (PL) shrimp annually. INVE works closely with Viet-Uc's hatchery and farm management, optimising their operations and protocols.

Applying best practice hatchery management principles — controlling conditions from start to finish — to the nursery and grow-out stages, Viet-Uc is investing in large-scale farming capacity without compromising the shrimps' health or conditions. Covered and aerated ponds combined with on-site water treatment and waste management make it possible to bring all environmental aspects under control.

Adopting game-changing technologies in feed formulation such as complete fishmeal replacement, Viet-Uc is a pioneer and innovator in the field of sustainable shrimp production.

“Mastering the hatchery stage has been the first step towards achieving better grow-out results. If you want to build tall, you have to start by laying a solid foundation.”

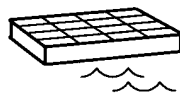
**Mr Van Thanh Luong**  
CEO Viet-Uc Group

### Economies of Scale



#### 15bn post larvae (PL)

The Viet-Uc Group has set up the world's largest shrimp hatchery near Bac Lieu, Vietnam, which produces approximately 15bn post larvae per year.



#### 3,000m<sup>2</sup>

The grow-out stage has been intensified in ponds of 3,000 to 3,500 square metres each. Stocking densities range from 400 to 900 post larvae per square metre.



#### 31°C

Covering its ponds with industrial green-houses, Viet-Uc maintains a constant water temperature of 31°C during the hot season. Daily fluctuations are kept under 1.5°C.



See more at [www.inveaquaculture.com/growth-stories](http://www.inveaquaculture.com/growth-stories)

## BENCHMARK'S LEADERSHIP TEAM

**Bob Long**, Managing Director,  
Benchmark Vaccines

Bob joined Benchmark as part of the BVL acquisition from Novartis in 2012. He graduated in Virology and Microbiology from the University of London and is a Member of the Royal Society of Biology, a Chartered Biologist and a Qualified Person. Bob brings to Benchmark over 35 years' experience in animal and human health.

**Hamish Rodger**, Global Managing  
Director, FishVet Group

Hamish Rodger graduated from the University of Glasgow Veterinary School, Scotland in 1984 and has worked as an Aquatic Animal Veterinarian for over 30 years. He has a Master's in Aquatic Veterinary Medicine from the Institute of Aquaculture, University of Stirling, Scotland where he also completed his PhD on the EIBS virus of salmonids in 1997.

**James Banfield**, Head of Technical  
Publishing, Managing Director  
of 5m Publishing

James has over 20 years' experience in professional and education publishing, holding positions with Longman from 1987 to 1993 as an Editor and Publisher, and then at Pearson Group PLC from 1993 to 2003 working in publishing and business development roles until he became Managing Director at FT Information Europe. Prior to joining Benchmark in 2012, James was Managing Director at KBC, an international education provider.

**Jan-Emil Johannessen**  
Managing Director, SalmoBreed

Jan-Emil has been the Managing Director of SalmoBreed since 2013 and has worked closely with Benchmark's senior team since SalmoBreed joined the Group in December 2014. He has over 30 years' experience within the Norwegian food production sector, having worked with Rieber (Toro) and Fossen AS (today Lerøy Fossen AS).

## PLC Executive Board

**Malcolm Pye**  
Chief Executive  
Officer

**Roland Bonney**  
Chief Operating  
Officer

**Mark Plampin**  
Chief Financial  
Officer

**Athene Blakeman**  
Company  
Secretary

**John Marshall**, Technical Director,  
Benchmark Animal Health

John is Technical Director of Benchmark Animal Health. He has over 20 years' experience in the animal health industry working in R&D, sales and marketing, business development, business unit leadership. John leads the Group's R&D teams working on the development, sales and marketing of new animal health vaccines, medicines and biocides.

**Jonas Jónasson**,  
Managing Director, StofnFiskur

Jónas joined Benchmark in December 2014 when StofnFiskur became a part of the Group. He joined StofnFiskur in 1996 as the Chief Geneticist responsible for developing and running breeding programmes for Atlantic salmon and was appointed CEO in 2006. Jónas is responsible for running StofnFiskur in Iceland and oversees the production of salmon ova and lumpsucker cleaner fish for the salmon industry.

**Morten Rye**, Managing Director,  
Akvaforsk Genetics

Morten has been working with genetic research and applied genetic improvement programs for fish and crustaceans since 1986 and joined Akvaforsk Genetics when it was established in 1999. During his career he has played a key role developing and establishing the Company as a renowned provider of genetic improvement services to aquaculture industries globally.

**Patrick Lavens**,  
Innovations Director, INVE

Patrick has a PhD in Applied Biological Sciences and an MSc in Biology from the University of Ghent where he was also Guest Professor in Aquaculture. Patrick joined INVE in 1999 and has since fulfilled a number of roles within the Company including Technical-Commercial Manager for Europe and Business Unit Manager Health. He has been Innovations Director since 2010 responsible for R&D, new business and product development.

**Philippe Léger**,  
Chief Executive Officer, INVE

Philippe has over 35 years' experience in the aquaculture industry and has worked at INVE Aquaculture (now Benchmark Advanced Nutrition) since its foundation in 1983. He has occupied a variety of roles including Research Scientist, R&D Manager, Manager Technical Department, Business Director Aqua and CEO. He holds a PhD in Agricultural Sciences from the University of Ghent and two Masters degrees in Environmental Sanitation & Management and Pharmaceutical Sciences.

**Pierre Hugo**, Finance Director, INVE

Pierre joined INVE in 2012 having previously worked at Pfizer for 11 years in roles including Accounting Supervisor, Controller, Senior Analyst and Business Finance Manager. Prior to this he spent three years as Finance Director at UCB Pharma and three years working at Sanofi Pasteur MSD. He has over 19 years' experience in finance and holds two Masters degrees in Finance and Taxation, as well as Risk and Insurance Management.

**Ruth Layton**, Benchmark  
Co-founder, Head of Benchmark  
Sustainability Science

In addition to her role as Director of FAI Farms, Ruth is also one of Benchmark's founders. Ruth graduated as a Veterinarian from The Royal Veterinary College London and has a Diploma in Animal Welfare Science Ethics & Law. She has extensive experience of consultancy within the food industry and with external parties, including various research institutes to tackle industry problems.

**Stelios Leontios**,  
Commercial Director, INVE

Stelios has worked at INVE since 1993 and has held several functions within the company including Technical-Commercial Support, Sales Executive, General Manager of INVE Hellas, Regional Manager Europe, Regional Sales Director Europe and Commercial Director. He has over 22 years' experience in Aquaculture and holds a Masters in Agricultural Sciences.

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Image: Benchmark's vaccine manufacturing facility, Braintree UK

## **DEVELOPING OUR INDUSTRY- LEADING TEAM**

2016 was a pivotal year for our People Strategy. The acquisition of INVE Aquaculture in 2015 more than doubled the number of people across the Group and increased our global footprint to 27 countries, requiring integration across new cultures and geographies.

Working groups across key business areas were set up to map out and implement strategies for enabling this as well as identifying areas of synergy and opportunity.

The ease and speed with which this has happened has far exceeded our expectations. We believe this is the result of our closely aligned company values and our team's continued appetite for embracing new challenges and opportunities.

A series of vision and values workshops were rolled out across key locations to ensure our senior leaders are united to ready the business for the next phase in our evolution and to take on the challenges of our dynamic industries.

Succession planning remains a focus and our Management Development Programme supports this, continuing to yield success into its fourth year as part of our company-wide strategy for nurturing emerging talent and developing and investing in our employees.

Ongoing recruitment for highly skilled, highly specialised positions across the Group — particularly within the areas of health, nutrition and genetics — remained a challenge throughout 2016, but renewed focus on developing existing and new recruitment partnerships helped secure a number of high quality appointments.

The global team has continued to deliver results despite many working in challenging circumstances, such as the construction of the Braintree Biotech Building and the renovation of FAI Ardtoe aquaculture research Facility in Scotland.

Our growth and continued success is down to the hard work, talent and dedication of every member of our team. Maintaining a culture where everyone feels a valued member of our global team, regardless of geography or role, is central to our strategy as we enter our next phase of growth.



**Our culture as a business is defined  
by our shared values, we are —**

### **Brave & Ambitious**

We challenge the status quo to create understanding, opportunity and innovation.

### **Practical**

We deliver the day job, we keep it simple, we are honest and straightforward.

### **Focused**

We are clear on our vision and know what success looks like.

### **Collaborative**

None of us are as good as all of us.

### **Courteous & Have Fun**

Our manners matter, our humour helps.

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## **A DAY IN THE LIFE**

**Birgitte Sørheim, Marketing Director  
for Benchmark Breeding and Genetics**

Since joining Benchmark's team in Bergen, Norway in August 2015 I've been able to use my combined skills and experience within marketing, sales and technical knowledge to drive results for Benchmark's (at the time) newly formed Breeding and Genetics division.

A typical day includes event planning, brand strategising, profiling, product launches, website production and generating advertisement, marketing and sales collateral. Exhibitions, conferences and customer seminars are also regular features in my diary. Our technology is highly advanced and specialised, so ensuring that customers understand how we can help them is key to my job and our success. Travel is essential to my role.

We are a truly international group and it is necessary to visit colleagues and other Benchmark teams to fully understand how we can promote their brands and products, and support their commercial activities. It is very important that our marketing strategies and actions are in line with the needs of our international customer base.

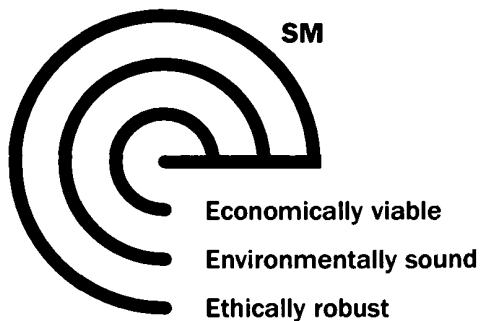
I am lucky to have a large base of skilled, talented and collaborative colleagues across the Benchmark Group and within Breeding and Genetics in particular. Our focus on the very start of the value chain for aquatic food production influences the entire life cycle that follows.

**It's incredibly exciting to know that what we do in Breeding and Genetics is going to influence the future of the industries we serve, and to work at a company which is a global leader in this space.**

## OUR RESPONSIBILITY AND IMPACT

Benchmark is founded upon what we call the 3Es — Economics, Ethics and Environment. Businesses now need to deliver ethically, environmentally as well as economically to bring sustainable success and profits. We believe that it's only when business gets involved that change really starts to accelerate.

The 3Es guide our hand, ensuring that we respond to the whole challenge and not to single issues in isolation. Here we list some issues of importance to humanity, and what Benchmark is doing to help tackle them.



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Challenge	Benchmark's impact
<b>Antibiotic resistance</b>  There are 15 World Health Organization (WHO) critically or medically important antibiotics, a number of which are still routinely used in agriculture and aquaculture.	Benchmark promotes and adheres to the '3Rs framework' of Replace, Reduce, Refine to help drive responsible use of antibiotics in agriculture and aquaculture. It is essential that we take responsibility to preserve the effectiveness of all antibiotics for the benefit of people, animals and the environment.
<b>Emerging diseases</b>  Disease is a significant barrier to sustainable production. New disease threats can be a limiting factor for all animal production systems, particularly within the young, fast-growing aquaculture industry.	Benchmark is investing in technologies to accelerate the early identification of new diseases through our state-of-the-art histopathology equipment, enabling producers to act rapidly and reduce losses. Across the Group we are investing in vaccine development as a means of preventing some of the leading health challenges facing our industries. We continue to train and educate our people and customers in best-practice prevention and management of key diseases.
<b>Animal welfare</b>  Giving an animal a 'life worth living' requires good husbandry, considerate handling and transport, humane slaughter and, above all else, skilled and conscientious stockmen (FAWC*).	Benchmark's team of animal health experts, combined with our products and training services, ensure we adhere to and promote the highest animal welfare standards throughout our operations. We recognise and respect the 'Five Freedoms' (RSPCA), but strive to ensure the highest possible welfare potential for every animal under our care. For example, through assisting in developing and implementing the RSPCA's Freedom Food standard for salmon.
<b>Energy use</b>  Climate change and rising costs of energy are key challenges facing every business.	In-house, as a baseline, we adhere to relevant environmental legislations and standards by implementing best practices within waste minimisation and management, energy use and water use. However, we always strive to do more. We are reviewing our footprint and identifying 'hotspots' in our operations where we need to make a difference — these often have economic and ethical benefits, as well as environmental.
<b>Community engagement</b>  Contributing to the well-being of communities.	We strive to have a 'net positive' impact on the communities in which we operate. For example, Benchmark supports FarmAbility in Oxford, an on-farm day service for adults with autism and learning difficulties to build their independence in living and working skills. Benchmark has supported the charity and its co-farmers from its inception, providing a base and facilities at the commercial research farm in Oxford, UK. The project has also been supported by Benchmark employees, with members of staff participating in a range of fundraising activities throughout the year.
<b>Health and safety</b>  Everyone has the right to go home unharmed and we all have a responsibility to ensure that we do.	Benchmark is deploying a commitment to health safety for every employee to sign up to as follows: <ul style="list-style-type: none"> <li>■ Nothing is more important than health and safety</li> <li>■ Nothing we do is worth being hurt for</li> <li>■ Nothing is so important we cannot take time to do it safely</li> <li>■ We will never witness an unsafe act or condition without taking action</li> </ul>

\* FAWC, the independent advisory body known as the Farm Animal Welfare Committee.

# Investing in a blue-green economy

Working closely with ambitious aquaculture entrepreneurs worldwide to improve production, Benchmark's Advanced Animal Nutrition division through INVE has witnessed many successes, innovations and breakthroughs. Below we feature the insight and experience of one of our partners.

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"Investing in aquaculture is investing in a future-proof production supply of protein for human consumption. A market that will keep on growing for many decades to come."

**Panagiotis Bitsakos**  
Aquaculture Entrepreneur

As global seafood consumption increases, producing the volumes necessary to maintain an adequate supply is a big concern in aquaculture. Quality, food safety and traceability have become critical factors for anyone who wants to successfully market any kind of food produce.

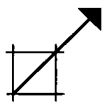
### Meeting the consumer's demand for safe and traceable food produce

An environmentally friendly approach to aquaculture is no longer just an ideological standard, it has become mandatory to maintain production licenses and commercial viability.

### Investing in the fish production of tomorrow

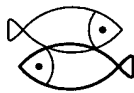
Philosofish by Bitsakos ('Philosofish') is one of INVE's customers which has recently managed to double its yearly proceeds. The secret to this success: a thorough professionalisation of their entire operations, funded with new working capital. We see this phenomenon worldwide as aquaculture has developed into an attractive industry for investors, who realise its enormous growth potential.

Philosofish used its new capital injection to increase its production capacity both in the hatchery and the farm. By expanding the hatchery and redesigning its set-up for a more controlled way of working, Philosofish can now produce more and stronger fry. The installation of additional sea cages enabled them to double their grow-out yield in a year's time. Our local experts contributed to the new set-up of the hatchery and the optimisation of feeding protocols to support their increased production targets.



### 100% growth

By investing in a thorough professionalisation of their operations Philosofish by Bitsakos has recently managed to increase its yearly proceeds by 100%.



### Two species

Philosofish by Bitsakos focuses its activities on sea bass and sea bream, two species that are in high demand on the Mediterranean seafood market.



### Large-scale investment plan

In order to support the Company's growth plan Philosofish by Bitsakos attracted new working capital, which allowed the Company to double its open sea cage farming capacity.



See more at [www.inveaquaculture.com/growth-stories](http://www.inveaquaculture.com/growth-stories)

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**Mark Plampin,**  
Chief Financial Officer

**FY16  
FINANCIAL REVIEW**

Key Performance Indicators

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## Financial highlights

- Revenue increased by 148% to £109.4m (2015: £44.2m). Like for like sales, excluding businesses acquired in either 2016 or 2015, increased by 20% to £29.8m (2015: £24.7m)
- EBITDA from Trading Activities<sup>1</sup> grew by £19.9m to £22.3m (2015: £2.4m)
- Adjusted EBITDA<sup>2</sup> increased by £14.9m to £9.2m (2015: loss of £5.7m)
- Animal Health division successfully recovered sales on Salmosan/Byelice
- Acquisition of INVE Aquaculture in December 2015 for US\$342m (c.£230m) created new Advanced Animal Nutrition division
- Integration of INVE went to plan and first revenue synergies were achieved
- Temporary closure of Chilean border to Icelandic produced salmon eggs impacted Breeding and Genetics revenues
- Operating loss of £20.5m (2015: £11.6m) after increase in investing activities to £26.7m (2015: £10.1m), including £12.9m of expensed acquisition and integration costs
- Expensed R&D increased by 77% to £11.7m (2015: £6.6m)

£m	2016	2015
Total revenue	109.4	44.2
Gross profit	50.8	16.1
Gross profit percentage	46%	36%
Operating expenses — Trading Activities	(28.5)	(13.7)
EBITDA from Trading Activities	22.3	2.4
Profit/(Loss) before tax from Trading Activities	4.3	(1.3)
Total net costs of Investing Activities	(26.7)	(10.1)
Loss before tax	(22.4)	(11.4)
Earnings/(Loss) per share from Trading Activities (pence)	1.79	(1.13)
Basic loss per share (pence)	(4.39)	(5.96)

<sup>1</sup> EBITDA from Trading Activities — excludes costs relating to Investing Activities from reported IFRS numbers. Investing Activities comprise exceptional restructuring costs, acquisition costs, pre-operational expenses for new ventures and research and development expenditure.

<sup>2</sup> Adjusted EBITDA — EBITDA before exceptional and acquisition costs.

## Group results

2016 was a transformational year for the Group, with the completion of the acquisition of INVE Aquaculture BV on 30 December 2015 to form the Advanced Animal Nutrition division which more than doubled the scale of the Group's operations. The Group's results include nine months of trading from the new division and this is a significant component of the comparison to 2015.

The continued strategy to build a platform to exploit the significant growth opportunity in the aquaculture market also delivers increased diversification of revenue streams across the supply chain in several species, both in cold and warm water. This has improved the Group's ability to withstand individual market challenges.

Group revenue increased by 148% to £109.4m in the year (2015: £44.2m). The growth in revenue was achieved through a combination of the successful acquisition of INVE and the recovery of Salmosan sales in the Animal Health division. Like for like sales, excluding businesses acquired in either 2016 or 2015, increased 20% to £29.8m (2015: £24.7m).

The Group continues to separate the statutory IFRS results into Trading Activities and Investing Activities, in line with many of its peers in the sector, to present better the underlying

performance and development of the business. This is how the board monitors progress of the existing Group businesses. Trading Activities are those related to products and services that have been developed and are producing revenue streams, while Investing Activities relate to the costs associated with acquiring new businesses and products and services being developed for future revenue streams and include a pipeline of vaccines at various stages of the development cycle.

The Group's statutory IFRS earnings (including both Trading and Investing Activities), set out in the Consolidated Income Statement, show an EBITDA loss for the year of £3.9m (2015: loss of £7.2m), and loss after tax for the year of £18.3m (2015: loss of £11.8m). Basic and diluted earnings per share are both losses of 4.4p per share (2015: basic and diluted loss per share of 6.0p).

## Trading Activities

Gross profit of £50.8m was up on the previous year (2015: £16.1m). Overall gross profit percentage increased to 46% (from 36% in 2015) due to the change in sales mix towards Advanced Animal Nutrition and Animal Health products. Like for like gross profit, excluding businesses acquired in either 2016 or 2015, increased 56% to £12.3m (2015: £7.9m).

Operating costs relating to Trading Activities (excluding amortisation and depreciation) in the year more than doubled from the comparative period to £28.5m (2015: £13.7m), with £11.4m of the increase coming from the newly created Advanced Animal Nutrition division. Headcount increased from 402 at the start of the year to 884 principally through the INVE acquisition. The remainder of the increase in operating costs reflects the inclusion of financial year 2015 acquisitions for a full year and increased activity within the Animal Health division.

Central operating costs have decreased from £4.9m in 2015 to £4.3m. This decrease reflects the better efficiency that the enlarged Group can achieve through increased scale and the impact of continued strong cost control.

As a result of the above factors EBITDA from Trading Activities of £22.3m was up on the previous year (2015: £2.4m).

Further commentary on divisional results is provided on pages 53 to 55.

## Investing Activities

Expensed R&D expenditure, one of the Group's key investment objectives, increased significantly to £11.7m (2015: £6.6m) in the year as a result of the Group's strategy to invest in technology solutions for food animal producers. The acquisition of INVE contributed £1.3m to the year on year increase as it also has a core focus on innovation to drive future growth. Overall spend was in line with expectations and R&D as a percentage of sales fell to 10.7% (2015: 14.9%).

Pre-operational expenses in the year of £1.4m (2015: £1.6m) relate primarily to the results of the FAI Aquaculture business which was undergoing the final stages of a substantial refurbishment. The Ardtoe site was unveiled in May 2016 and became fully operational at the end of the year. It will provide trials facilities to the Benchmark Group that will help to advance new product launches. The new FVG laboratories in Chile and Brazil are also included within pre-operational expenditure and are nearing completion.

Significant acquisition related costs of £12.9m (2015: £1.3m) were incurred in the year principally in respect of the acquisition of INVE and the associated fund raising. This acquisition was considerably larger than all of the acquisitions completed in 2015 and hence costs were higher.

Exceptional non-recurring costs of £0.1m (2015: £0.2m) related to the completion of the restructuring exercise undertaken on the Sustainability Science division which began in 2015.

Depreciation and amortisation at £16.6m in the year (2015: £4.3m) was higher than in previous years due to the significant increase in tangible and intangible fixed assets balances following the increased investment in the year and during the previous year, primarily from the acquisition of INVE. Amortisation of intangibles was £13.7m in the year.

## Finance costs

Net finance costs of £2.2m (2015: net finance income of £0.2m) reflect the fact that a multi-currency revolving credit facility of up to \$70m was put in place in December 2015. This facility incurs interest in the range of 1.9% to 2.5% above LIBOR depending on leverage.

The consideration for INVE was denominated in USD, US\$50m was drawn to part fund the purchase of INVE followed by a further US\$5m and £5m — both of which were repaid during the year. A foreign exchange loss of £5.0m arose due to the movement in exchange rates and has been included within finance costs.

## Taxation

There was a tax credit in the period of £4.0m (2015: charge £0.4m). Overseas tax charges in the Advanced Animal Nutrition division were more than offset by deferred tax credits on the reversal of temporary differences, particularly those arising on the intangible assets arising on consolidation from recent acquisitions. In particular, a deferred tax liability of £50.1m arose on the intangible assets acquired with INVE during the year. The deferred tax credit for the year relating to those acquired intangible assets was £4.1m. No deferred tax assets have been recognised on the losses incurred in the year except where there is certainty over the timing of their recovery.

## Earnings per share

Basic loss and diluted loss per share were both 4.4p (2015: loss per share 6.0p). The movement year on year is due to a combination of the result for the year as noted above, and the issue of new shares in the equity raise used to fund the acquisition of INVE and the subsequent fund raise later in the year. Earnings per share from Trading Activities rose to 1.8p (2015: loss per share 1.1p) with the movement due to an improved result coupled with the dilutive effect of the higher number of shares in issue.

## Dividends

No dividends have been paid or proposed in the year (2015: £nil).

## Balance sheet

Group net assets increased in the year to £367.7m (2015: £92.1m), with the main increase arising from the equity raises in the year. Gross proceeds from the first raise used to fund the acquisition of INVE were £185.7m and £4.4m of costs related to the equity raise were netted off the share premium account. In addition, a further equity issue was completed in August 2016 raising gross proceeds of £30.7m.

Intangible assets have increased in the year to £352.5m (2015: £65.9m). Note 31 to the accounts outlines the fair value of the assets and liabilities acquired in the acquisitions made during the year. These include separately identifiable intangible assets of £147.6m relating to INVE's intellectual property, contracts, licences and customer lists. Deferred tax liabilities totalling £50.1m were provided for the tax timing differences on these intangible assets. Goodwill of £102.9m arose on the acquisition and reflects the synergies available from combining INVE with Benchmark. There was a further increase of £47.6m in the net book value of intangible assets due to the movement in foreign exchange rates in the period, as those which were acquired in overseas acquisitions were revalued to the year end exchange rates.

Tangible fixed assets have increased by £24.8m to £50.0m in the year. Other than those assets acquired with INVE, the main investment has been in the new vaccine manufacturing plant in Braintree, Essex, together with the investment in trials facilities at FAI Aquaculture's site in Ardtoe, Scotland.



## Cash flow

Net cash flow from operations was an outflow of £10.5m (2015: outflow £9.0m) due to the increased working capital demands of the enlarged Group which offset cash inflow before working capital adjustments of £3.7m (2015: cash outflow £8.2m).

Cash flows were dominated by the proceeds of the two share placings in the year, with a total of £211.8m net of costs being received. £181.3m of this was used to fund the

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\* Sustainability Science Division and Technical Publishing Division

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\* Sustainability Science Division and Technical Publishing Division

acquisition of INVE, together with some of the receipts from the new debt facility entered into in December 2015, with total cash inflow from proceeds of the bank borrowings of £42.3m. The balance of the INVE purchase price was settled by the issue of new shares.

The rest of the proceeds from share placings is being used to fund a number of strategically important projects including investment in a partnership that is constructing a new salmon egg production facility in Norway and the acquisition of the shrimp breeding programme in South America. The majority of the funds from this share issue remained on deposit with the Company's bankers at the year end.

Cash outflow on capital expenditure in the year was £18.7m as investment in expanded capacity at Braintree and Ardtoe nears completion (2015: £14.0m).

Cash at the period end stood at £38.1m (2015: £13.6m) and borrowings drawn under the revolving credit facility, net of debt raising costs, and finance leases stood at £37.7m giving the Group a net cash position of £0.4m.

## Treasury

The Group has established procedures to mitigate financial risk to ensure sufficient liquidity is available to meet foreseeable requirements. These ensure that finance is secured at minimum cost where required and that cash assets are invested securely and profitably. The finance function manages the Group's foreign exchange, liquidity and funding, interest rate and credit risks within a framework of policies and guidelines authorised by the Board.

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The Group uses simple derivative financial instruments for risk management purposes only. Group policy prohibits speculative arrangements. Transactions in financial instruments are always matched to an underlying business requirement, such as expected foreign currency revenues and payments. The Group uses derivatives only to manage its foreign currency and interest rate risks arising from underlying business activities. No such derivatives were outstanding at the year end. Treasury activities are reported to the Board on a monthly basis within the Group management accounts.

Foreign exchange risk

The Group's reporting currency is pounds sterling. Where group entities operate with a different functional currency, the Group's policy is, where possible, to allow group entities to settle liabilities denominated in their functional currency with the cash generated from their own operations in that currency. Where group entities have liabilities denominated in a currency other than their functional currency (and have insufficient reserves of that currency to settle them), cash already denominated in that currency will, where possible, be transferred from elsewhere within the Group.

Where significant transactions are conducted in currencies other than the functional currencies of the individual entities, exposure to movements in exchange rate is mitigated by the use of simple financial derivative instruments as appropriate.

Liquidity and funding

The Group's finance function is responsible for sourcing and structuring borrowing requirements. The Group began the year with no bank borrowings and, as a result of the revolving credit facility first drawn in December 2015, had £37.1m in bank borrowings at the end of the year. The new facility has a maximum drawdown of US\$70m leaving sufficient funding facilities (£15.4m at 30 September 2016) to meet its normal funding requirements in the medium term.

Interest rate management

Controls over interest rate exposure are in place and dealings are restricted to those banks with the necessary combination of geographic presence and suitable credit rating.

Credit risk

The policy followed in managing credit risk permits only minimal exposures, with any surplus funds invested mainly in short-term deposits with financial institutions that meet credit criteria approved by the Board. Specifically, counterparty creditworthiness is determined by reference to credit ratings as defined by the global rating agencies: Fitch, Standard & Poor's and Moody's.

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## FINANCIAL PERFORMANCE

### Advanced Animal Nutrition Division

The division has performed well, with sales of £55.0m and EBITDA from Trading Activities at £17.1m for the nine months post acquisition of INVE. Sales of core live feed products (artemia) were strong and selling prices were resilient. Market prices for raw material sourced in Asia increased and this resulted in some erosion of gross profit percentage. Adverse conditions in the main shrimp markets linked to: the drought caused by El Niño during H1; disease challenges for customers; and the strong US Dollar, resulted in lower volume of sales of replacement diets. Gross profit percentage for these products remained stable. These adverse impacts on sales and margin were partially offset by the favourable GBP:USD exchange rate (arising after the UK's decision to exit the EU) when converting the financial results of the division. Operating costs relating to Trading Activities (20.6% of sales) were managed carefully with some increase in payroll and other employee related expenses as a result of the strategy to continue to grow by implementing three business initiatives: implement key accounts approach (China and Asia); accelerate the penetration in the farm and grow-out segment; and gain a market leading position in fish hatcheries (Asia).

Expensed R&D costs were £1.3m and capitalised R&D was £0.7m reflecting increased investment for supporting the above growth initiatives.

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Summary Income Statement	2016 £m
Revenue	55.0
Cost of Sales	(26.5)
Gross Profit	28.5
Operating costs relating to Trading Activities	(11.4)
EBITDA (from Trading Activities)	17.1
Operating costs relating to Investing Activities	(1.2)
Depreciation and amortisation	(11.4)
Operating profit	4.5

### Breeding and Genetics Division

The Breeding and Genetics division experienced difficult trading conditions for sales of salmon eggs in the year as a result of the closure of the Chilean border to Icelandic eggs at the start of the year, lower stocking in the Chilean industry in response to environmental challenges. The revenues lost as a result of these factors were offset by the impact of a full year's trade, and overall, revenues for the division increased to £20.7m (2015: £15.9m). The integration of the division's tilapia breeding business, Spring Genetics, was completed and its sales grew from £0.2m to £0.5m. The division's aquaculture genetics advisory business, AFGC, achieved growth in revenue of £1.4m. The addition of shrimp breeding through the acquisition of Genética Spring in August 2016 had limited impact on the division's results for the year.

EBITDA from Trading Activities fell by £1.1m to £3.6m (2015: £4.7m).

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Summary Income Statement	2016 £m	2015 £m
Revenue	20.7	15.9
Cost of Sales	(13.5)	(9.9)
Gross Profit	7.2	6.0
Operating costs relating to Trading Activities	(3.6)	(1.3)
EBITDA (from Trading Activities)	3.6	4.7
Operating costs relating to Investing Activities	(4.6)	(0.2)
Depreciation and amortisation	(2.6)	(1.4)
Operating profit	(3.6)	3.1

## Animal Health Division

The division's pipeline of new technologies and products remains its key focus, and first sales of a new Nodavirus vaccine for sea bass were made in July 2016.

The Animal Health division achieved significant improvement in year on year sales of Salmosan/Byelice with total revenue up on last year by 18%. 2015 sales were impacted by generic competition and the 2016 recovery is as a result of targeted sales activity by Benchmark's technical team. It should be noted that demand for Salmosan is expected to reduce over time as the product continues through its life cycle, as a result of generic competition and as new solutions to the sea lice challenge become available to the industry.

EBITDA from Trading Activities for the division was a profit of £4.5m (2015: £2.1m).

Expensed R&D costs (including amortisation and depreciation of acquired R&D assets) of £8.7m have been invested in the product pipeline in the period (2015: £5.5m). This year for the first time the criteria for capitalising development costs have been met and £0.8m has been capitalised in respect of new products which are in the trial stages.

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Summary Income Statement	2016 £m	2015 £m
Revenue	24.8	21.1
Cost of Sales	(15.0)	(14.5)
Gross Profit	9.8	6.6
Operating costs relating to Trading Activities	(5.3)	(4.5)
EBITDA (from Trading Activities)	4.5	2.1
Operating costs relating to Investing Activities	(9.0)	(6.1)
Depreciation and amortisation	(1.5)	(1.9)
Operating loss	(6.0)	(5.9)

## Sustainability Science and Technical Publishing Divisions

The knowledge services divisions of Benchmark had a solid year following internal reorganisation and delivered sales of £11.2m (2015: £10.1m) and EBITDA from Trading Activities of £0.2m (2015: EBITDA loss of £0.2m).

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Summary Income Statement	2016 £m	2015 £m
<b>Revenue</b>	<b>11.2</b>	<b>10.1</b>
Cost of Sales	(7.0)	(6.9)
<b>Gross Profit</b>	<b>4.2</b>	<b>3.2</b>
Operating costs relating to Trading Activities	(4.0)	(3.4)
<b>EBITDA (from Trading Activities)</b>	<b>0.2</b>	<b>(0.2)</b>
Operating costs relating to Investing Activities	(1.6)	(0.2)
Depreciation and amortisation	(1.0)	(1.0)
<b>Operating loss</b>	<b>(2.4)</b>	<b>(1.4)</b>

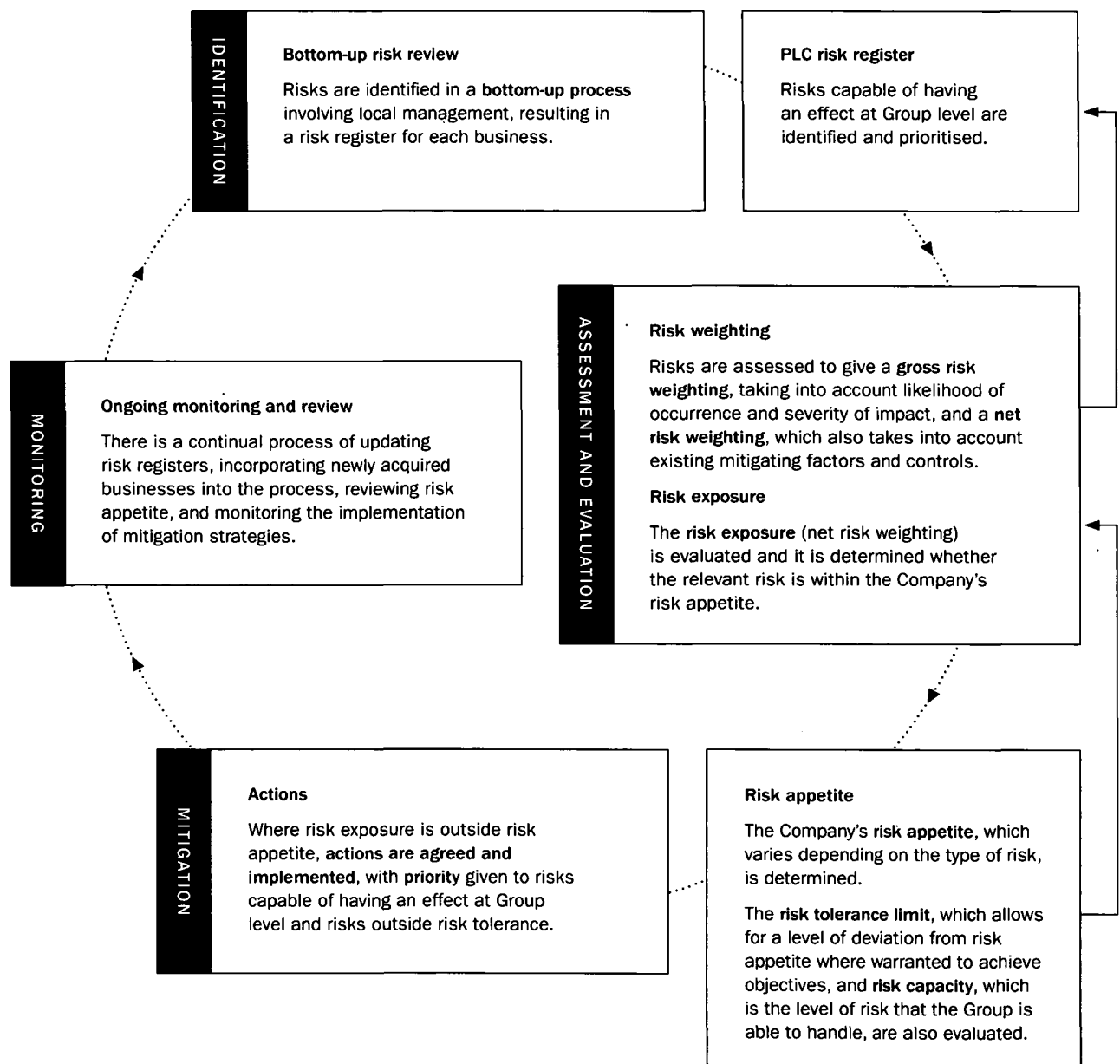
## RISK MANAGEMENT

### Approach to risk management

The Group recognises that taking risks is an inherent part of doing business and that competitive advantage can be gained through effectively managing risk. The Group continues to develop risk management processes, integrating risk management into business decision-making. The Group's approach to risk management is set out in the diagram below, and areas of focus during the year are discussed. The principal risks and uncertainties, together with their potential impacts, are set out in the tables below along with an illustration of what is being done to mitigate them.

The Board is responsible for ensuring that the Company has in place effective procedures for the management of risk, and that the principal risks faced by the Group are identified, assessed, appropriately mitigated and monitored. The Audit Committee reviews the effectiveness of the Company's risk management and internal control procedures on behalf of the Board.

The diagram below sets out the key elements of the Company's risk management framework.



## Areas of focus

In 2015, a bottom-up risk review was concluded, under the guidance of the Chief Financial Officer and an independent risk adviser, which resulted in the creation of a risk register for each business. Risks were categorised as strategic, operational, financial, human, legal/regulatory, or asset, and were given a weighting, having regard to the likelihood of occurrence, severity of impact and existing mitigating factors and controls. A PLC Risk Register was created, which identified and assessed the risks capable of having an impact at Group level, and commented on existing mitigating factors and controls.

During the year, the Company reassessed its risk appetite. The Board agreed on a risk appetite statement applicable to the Group as a whole, which articulates the Group's overall willingness to take risks (set out below).

The Board also reviewed a more detailed risk appetite matrix, which sets out the Group's appetite for risk in key areas relevant to the business. The Board received an overview of the Group's risk profile, which evaluated each business against various risk categories, and identified significant risks and areas requiring focus.

The Group has repeated the bottom-up risk review and reviewed the PLC Risk Register to ensure that these remain current and takes into account newly acquired companies and developments in the business. A programme is ongoing, at both PLC and local level, to identify where risk exposure is outside appetite, and to develop a plan to mitigate or control such situations.

## Risk appetite statement

Benchmark Holdings plc, operating as it does in a highly regulated sector involving significant interaction with living organisms, has a very low tolerance to risks of breaching legal, regulatory or ethical standards or anything which could negatively impact on our reputation. The nature of our business means that we can be impacted by biological or climatic effects which are beyond our influence and so where possible, we take steps to mitigate these impacts on the business. We use our knowledge of fundamental biology to develop products that tackle unsolved problems often by applying new technology. We are mindful of our stakeholder requirements and so will take measured risk with regards to the integrity of our product pipeline and intellectual assets.

We recognise that our people are one of our greatest assets and the Group encourages their long-term commitment allowing them to progress and achieve success. Failure to leverage value through collaborative working and cooperation between our Divisions is not a risk we are prepared to accept and the Group has the management structure in place to continue to deliver this particular goal. Where we believe that actions will be beneficial to the Group and its stakeholders, such as specific projects or acquisitions, then we will be willing to take more risk relative to the potential rewards on offer.

## PRINCIPAL RISKS AND UNCERTAINTIES

Risk Category	Risks and uncertainty	Mitigating factors	Opportunities
Legal and Regulatory — Licences and accreditations	Failure to obtain or retain licences for key existing or new products, R&D facilities 1:1048576 production sites could lead to reduced sales or restrictions on sales growth.	The Group employs high calibre teams in regulatory affairs, quality control and customer technical support who manage the licence application process and ensure compliance with existing licence conditions.	The knowledge of our people is a key asset and the need for a high calibre team to handle regulated products and processes is a barrier to entry for potential competitors.
Legal and Regulatory — Intellectual assets	Risk of legal challenge to the Group's intellectual property leading to potentially significant costs being incurred in the defence of Group IP or defending against third party accusations that the Group breached third party IP. A failed defence could lead to the loss of a product and/or compensatory awards.	The Group employs an in-house legal team including an IP specialist. This is combined with retained external specialist advisers. Benchmark applies a rigorous process to appraise the IP in all new products and adopts a policy to vigorously defend or negotiate all claims arising.	In house resource enables long-term strategic focus on efficient protection of IP which in turn protects future revenue streams.
	Access to rights to commercialise some pipeline products developed in collaboration with universities or other third parties are yet to be negotiated and there is a risk that the Group may not be able to launch these products or may have to agree to less favourable terms in order to do so.	A system for monitoring the contractual and IP position of pipeline products has been developed and this is operated in parallel with systems for monitoring status of product development. The Group has expanded the in-house legal team to include an IP manager who works closely with the product development team.	Further focus on this area will provide opportunities to improve terms for future product development collaborations.
Operational — Products	The Group is reliant on the continued success of its research and development programmes for aquaculture and the commercial success of its pipeline products. An unexpectedly high new product development failure rate or delay in reaching market would delay revenue growth.	The Group has a high calibre team of animal health product development specialists covering all stages of the process to market. Some new products in development involve collaboration with specialist partners and often present a lower risk as the Group can leverage the partner's existing development work. Rigorous proof of concept studies are undertaken at an early stage in order to seek to minimise the possibility of failure.	This approach to product development tends to enable the Group to access a wider portfolio of potential solutions to identified market needs and often allows accelerated progress to market launch.
	Development of resistance to some existing products would lead to reduced efficacy.	The Group has deployed a technical support team to provide customers with regular advice and training on the proper use of its products. There is a particular focus on good stock management and avoiding over-use.	Correct management of product efficacy presents an opportunity to provide a package of solutions that enable better long-term disease management.
Operational — Supply chain	Delayed launch or under-utilisation of laboratory, manufacturing or R&D facilities resulting in reduced return on investment.	New capital projects are supervised by an experienced project manager working with an in-house project team and supplemented by retained specialist consultants and advisors. The Group's new product pipeline will provide significant utilisation of group manufacturing capacity in the future. External manufacturing contracts are also available.	Having in-house manufacturing provides security of supply and protects important IP that is developed in the manufacturing process. Laboratories provide brand penetration into the key aquaculture markets.
	Reliance on third parties to provide some raw materials and manufacturing services could lead to restrictions in supply.	Wherever possible dual suppliers of key raw materials, components and manufacturing services are engaged on a contracted basis. In addition the group continually evaluates the security of the supply chain for each of its products and will consider establishing in house manufacturing where there is a high risk. The Group will also increase stock holding where appropriate in order to mitigate the risk of product shortages.	Where dual supply is achieved this presents opportunities for cost saving and also to encourage collaboration. Where in house manufacturing is the preferred approach this can present opportunities to generate revenues from providing manufacturing services to third parties.
	Disease outbreaks at sites with breeding programmes or live stocks could result in reduced revenues, reputational damage and potential product liability claims.	Group breeding facilities operate high standards of biosecurity, quality control and quality assurance. In particular StofnFiskur's location in Iceland provides some of the best resources for disease free production.	Consistent disease free production results in increased customer confidence and the potential to expand sales.
Financial	Limited diversity of revenue streams presents a risk of volatility in sales.	The Group's pipeline of new products is anticipated to deliver an increasing number of launches in both existing and new markets. Benchmark's offering of a package of solutions and technical support promotes customer retention and reduces volatility in orders.	The Group is fast building a strong position as a key technology solutions provider to the global aquaculture industry across multiple species and this brings new opportunities at an increasing pace.
	The Group is exposed to risks associated with currency exchange rates. This impacts sales volumes where products are priced in US dollars but sold in local currency and impacts reported results when local results, assets and liabilities are converted to GB pounds.	Substantial natural hedging is achieved by matching currency cash flows and through borrowings in US dollars. A treasury policy is in place to ensure that currency outflows that cannot be matched internally are hedged when there is certainty of amount and timing.	
	Debt facilities include financial covenants which, if breached, could lead to reclassification of debt as 'within one year' and to the requirement to refinance on uncertain terms.	Financial covenants are set with appropriate headroom and regular reforecasting enables advanced monitoring of compliance. Proactive management of the relationship with banking partners based on track record of delivery and a spirit of openness and early engagement would assist if amendments to covenants were required.	
	The Group's customers are susceptible to the impact of climatic conditions on their livestock and hence their profitability. This may cause short-term unpredictability in Benchmark's trading and in anticipated growth in revenues.	Consider the potential range of consequences of adverse conditions when preparing financial projections. Monitor climatic data and market intelligence.	Climatic conditions often impact the performance of livestock and can promote new or heightened disease challenge, which presents Benchmark with the opportunity to apply its technology to solve these new problems.



Risk Category	Risks and uncertainty	Mitigating factors	Opportunities
Human — People	Failure to recruit, retain or replace employees with skills key to the success of the business.	Benchmark has a centralised People team with a core understanding of group requirements backed up by a People Strategy. The Operations Board is involved in all key hires and in developing and implementing policy. The Group's Divisions have established management teams and a substantial degree of autonomy meaning that potential problems with succession are reduced.	Benchmark has a high staff retention rate which supports the Group's strong culture and ensures consistent delivery of its strategy.
	Benchmark is involved in production environments and there is a risk of injury or death to employees. This could lead to legal action and, as a consequence, reputational and financial damage to the Group.	Health and Safety is a priority matter for the plc board and a new senior post of Health and Safety manager was created in 2016. This senior post reports to the board and the manager has launched new policies, implemented priority safety measures and improved monitoring and reporting.	
Asset risk — Assets and business interruption	Damage to Group assets could result in loss of key breeding or manufacturing capacity coupled with long lasting consequential losses including loss of customers.	Regular safety inspections are undertaken to assess the risk of fire, security, etc. and integrated alarm systems are installed wherever possible. Tenure at key sites is generally secured through freehold ownership or long leasehold. The Group is improving safety standards at all sites and constructing alternative production facilities where return on investment can be demonstrated.	The launch of alternative manufacturing facilities provides significant additional production capacity.
	Key systems or IT Infrastructure failure could lead to temporary or permanent loss of data resulting in lost IP delays to product launches, reduced production capacity, delays to financial reporting, etc.	Benchmark employs a centralised IT team with an IT strategy in place that has security at its centre. This includes implementation of key security systems like single sign on. The Group utilises a mix of in house and outsourced solutions to ensure systems are robust and data is secure.	Properly controlled use of IT systems enables faster and wider collaboration, especially for an international business like Benchmark.
Strategic — Reputational	Failure of a Group product could cause third party loss or damage resulting in potential legal action, loss of confidence in product, damaged reputation and reduced sales. There is risk of one entity suffering reputational damage that then spreads to other associated group companies.	Benchmark employs rigorous quality control, quality assurance and pharmacovigilance practices. The Group provides a high level of technical support and training to customers in order to ensure correct use of products. Any issues arising would be discussed at the Operations Board ensuring a swift group response and this would include the group's centralised communications team.	Efficient protection of reputation results in high levels of customer confidence and hence supports opportunities for collaboration and growth.
Strategic — Synergies	One of the Group's key strategies is to extract synergies between operating divisions and failure to manage this effectively could inhibit growth.	Management of the Group is structured to maximise focus on synergies and the senior team have this as a key priority. In addition, one of the founding principles of the group's ethos is to encourage collaborative working.	Effective collaboration drives progress faster and opens further opportunities for growth.

The Strategic Report was approved by the Board on 24 January 2017 and signed on its behalf by



Malcolm Pye  
Chief Executive Officer

# 02

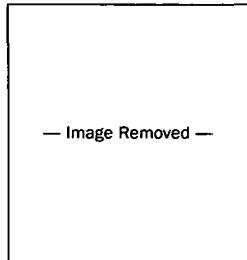
## Governance

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## INTRODUCTION TO THE BOARD

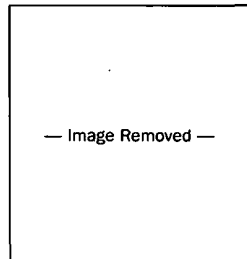
## Board of Directors and Company Secretary



### Malcolm Pye — Chief Executive Officer

**Appointed:** November 2000

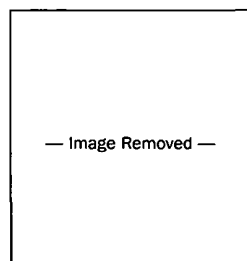
**Skills, competence and experience:** Malcolm has over 30 years' experience in international agribusiness through his roles within the Hillsgate Holdings/HMTF group, operating in animal breeding, poultry, feed milling and veterinary services. During this time, Malcolm gained extensive experience in breeding and genetics, sales and strategic M&A, and held board positions within the Group. In 2000, Malcolm founded Benchmark, along with Roland Bonney and Ruth Layton, and has since led the Company's growth and diversification. Malcolm has a degree in Zoology/Applied Zoology from the University of Wales (Bangor).



### Roland Bonney — Chief Operating Officer

**Appointed:** November 2000

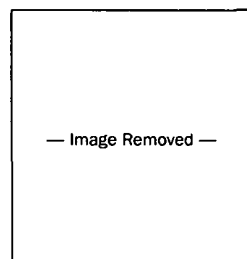
**Skills, competence and experience:** Roland is an experienced agriculturalist, having founded businesses in large-scale farming and food chain development consultancy serving global food retailers. Roland has extensive experience in international business development, particularly in the US, Latin American and Chinese markets. Roland was one of the three founders of Benchmark, and has since led the Company's operations, working with management teams to identify and implement opportunities for improvement and optimise use of resources, as well as leading the Company's communications and people strategies.



### Mark Plampin — Chief Financial Officer

**Appointed:** March 2010

**Skills, competence and experience:** Mark is a qualified Chartered Certified Accountant with over 20 years' experience. Mark joined Benchmark in 2010 from PKF (UK) LLP (now BDO LLP), where he was a Partner and National Chairman of the Food Sector Group. Mark's experience at PKF was focussed on corporate finance, including leading on M&A and the strategic development of high-growth small and mid-market businesses.



### Alex Hambro — Non-Executive Chairman

*Nomination Committee (Chair) — Audit Committee*

**Appointed:** December 2013

**Skills, competence and experience:** Alex has operated in the private equity industry, both in the UK and USA, for over 25 years. He has acted as principal investor, manager and sponsor of private equity and venture capital management teams, and adviser to professional private clients. Alex managed the venture capital and private equity fund investment portfolio for Hambros plc, prior to its sale to Société Générale in 1998. Alex was also a founding Director of both Crescent Capital, a venture capital fund management team based in Belfast, and Judges Scientific plc, a scientific instrument manufacturing group.

**Other roles:** Chair of Judges Scientific plc; Chair of Crescent Capital NI Limited; Non-Executive Director of Octopus Apollo VCT plc; Non-Executive Director of BACIT (UK) Ltd; Non-Executive Director Bapco Closures; Non-Executive Director Whitley Asset Management; Non-Executive Director First Magazine Ltd.

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**Susan Searle — Senior Independent Director***Remuneration Committee (Chair) — Nomination Committee***Appointed:** December 2013

**Skills, competence and experience:** Susan has over 20 years' experience working with entrepreneurs and academic inventors in the commercialisation of university research. Susan co-founded Imperial Innovations Group plc, now one of the world's leading technology venture investment businesses, and was the group's Chief Executive Officer from 2002 to 2013. Previously, Susan held roles in sales, marketing, operations and manufacturing in various industries including chemicals, precious metals and retail. Susan holds an MA in Chemistry from Exeter College, Oxford.

**Other roles:** Chair of Woodford Patient Capital PLC; Chair of Mercia Technologies PLC; Senior Independent Director and Non-executive Director of Horizon Discovery Group plc; Non-Executive Director of QinetiQ Group plc.

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**Kevin Quinn — Non-Executive Director***Audit Committee (Chair) — Remuneration Committee***Appointed:** November 2016

**Skills, competence and experience:** Kevin is a qualified Chartered Accountant with over 30 years of financial experience in international business and the biosciences industry, including with FTSE 100 companies. Kevin has, for the past 11 years, been Chief Financial Officer at Berendsen plc, the leading FTSE 250 European textile service business. Previously, Kevin held senior finance positions within biosciences group Amersham plc and before that was a partner with PricewaterhouseCoopers (Prague). Kevin holds a BA in French from University College, Durham.

**Other roles:** Chief Financial Officer of Berendsen plc.

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**Athene Blakeman — Company Secretary & Group Legal Counsel****Appointed:** September 2014

**Skills, competence and experience:** Athene is a qualified Solicitor with over 12 years' experience. Athene previously worked in Slaughter and May and Travers Smith LLP's corporate finance teams, focussing on public company advisory work, M&A, fundraisings, private investments, JVs and commercial contracts. Since joining Benchmark, Athene has acted as Company Secretary and Group Legal Counsel, with responsibility for the Group's global legal and IP functions. Athene holds an MA in Jurisprudence from St John's College, Oxford.

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**Basil Brookes — Non-Executive Director***Audit Committee (Chair) — Remuneration Committee***Appointed:** December 2013**Retired:** July 2016

Following a very successful 3-year term as Non-Executive Director, Basil Brookes stepped down from the Board in July 2016 for health reasons.

**Board Committees****Audit Committee**

Kevin Quinn (Chair)  
Alex Hambro

**Nomination Committee**

Alex Hambro (Chair)  
Susan Searle

**Remuneration Committee**

Susan Searle (Chair)  
Kevin Quinn

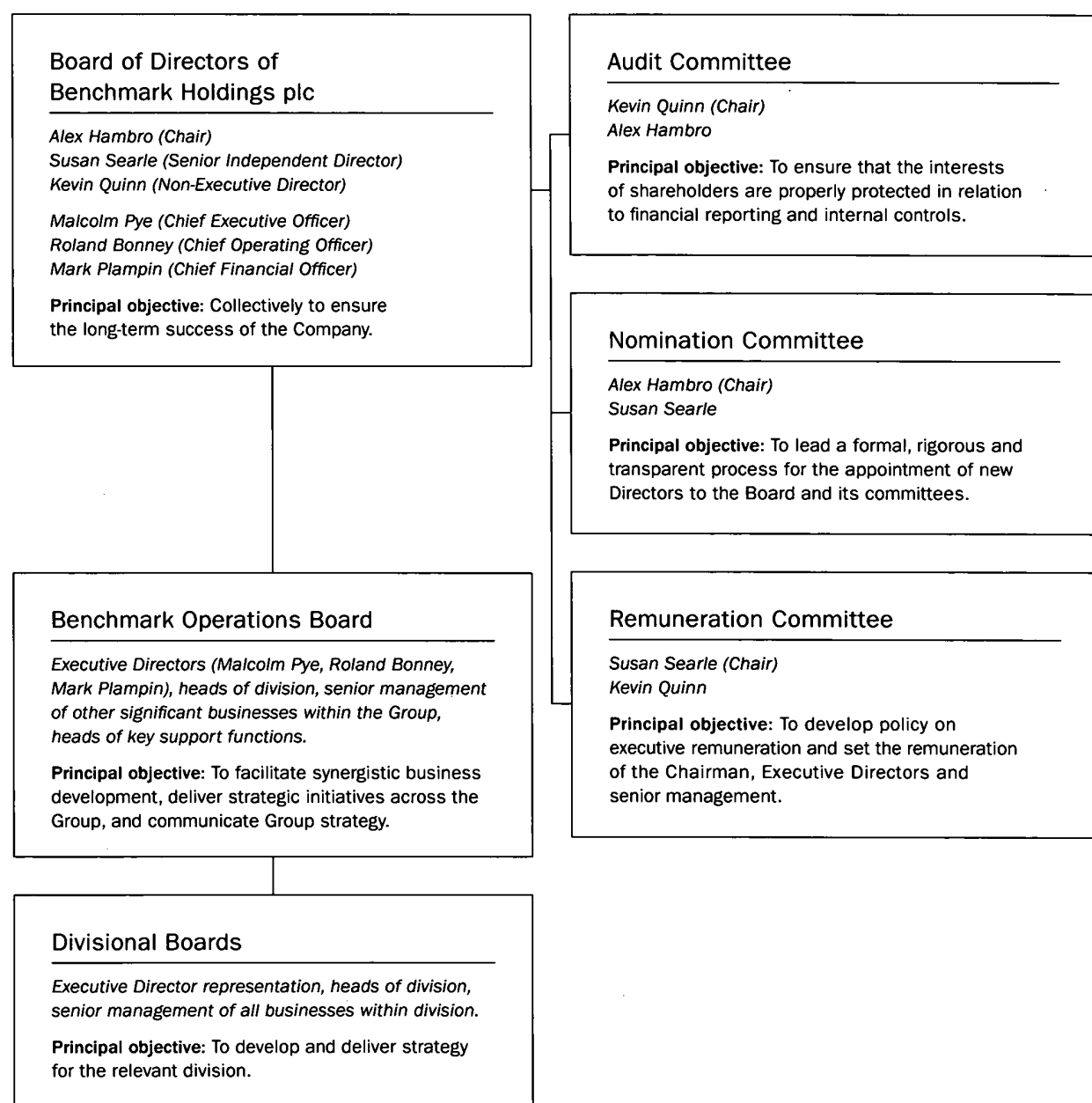
On 29 July 2016, Basil Brookes (Non-Executive Director) stepped down from the Board for health reasons. Basil had been Chair of the Audit Committee and a member of the Remuneration Committee. The Board implemented its succession plan and promptly commenced a recruitment process to find a Non-Executive Director with appropriate skills and experience to replace Basil, and Kevin Quinn was appointed on 25 November 2016. In the interim period, temporary appointments were made to ensure that each of the committees maintained an appropriate composition and the requisite experience. Alex Hambro stepped up to Chair the Audit Committee, and Susan Searle was appointed on an interim basis to the Audit Committee. Susan Searle remained Chair of the Remuneration Committee, and was joined by Alex Hambro who was appointed on an interim basis to the Remuneration Committee.

## LEADERSHIP

### Governance framework

Benchmark operates a clear governance framework, which is outlined in the diagram below and described in this report.

The Company complies with the principles of the UK Corporate Governance Code (the Code). An overview of the Company's compliance with the Code is set out in the Directors' Report on pages 79 to 83.



## Role of the Board

The Board is responsible for the long-term success of the Group, overseeing the development and delivery of strategy and conduct of the business, to generate sustainable value for shareholders.

The Executive Directors are responsible for the implementation of strategy, business operations, risk management, and ensuring that the necessary financial and people resources are in place to achieve the Company's aims. The primary responsibilities of the Non-Executive Directors are to constructively challenge and help develop strategy, scrutinise the performance of management, satisfy themselves that financial controls and risk management systems are robust, determine Directors' remuneration, satisfy themselves regarding the integrity of financial information, and succession planning for Executive Directors and senior management.

Each year, the Board holds a Strategy Day to allow for a focussed session to discuss the long-term strategy of the Group and related matters, including the composition and performance of the Board, succession planning, Group and management structure, financial resources and funding, and people resources and deployment. At this year's Strategy Day, the Board received presentations from the heads of each of the Animal Health, Advanced Animal Nutrition and Breeding and Genetics Divisions regarding their long-term strategy for those divisions, which included an analysis of opportunities for growth and proposed investment programmes. The Board also dedicates a portion of each Board meeting to discussing strategy and its implementation. The Board exercises oversight and control over the performance of the Company through review of management financial information, by agreeing budgetary targets, and by approving investment programmes and monitoring their execution against budget and returns on investment. In addition, certain decisions which are significant to the Group due to their strategic, financial or reputational implications are reserved for approval by the Board.

## Matters reserved for the Board

The decisions which are significant to the Group due to their strategic, financial or reputational implications and are reserved for approval by the Board are set out on this page. A formal schedule of matters reserved for the Board is maintained, and is communicated throughout the Group via regular training.

The matters reserved for the Board were reviewed by the Board in 2016. Amendments were made to take account of changes in the business as a result of the INVE Acquisition, including the introduction of business specific thresholds for identifying material decisions.

## Strategic decisions

- Review and approval of the long-term objectives and strategic direction of the Group
- Approval and monitoring of strategic and annual business plans and budget
- Review of business performance
- Approval of significant acquisitions, mergers, disposals and other transactions
- Approval of diversification into new business activities and new geographies

## Reporting

- Approval of the Annual Report and Accounts and of the interim financial statements
- Oversight and approval of significant changes to reporting policies and practices

## Regulatory matters

- Compliance with the AIM Rules for Companies and principles of the UK Corporate Governance Code
- Approval of interim dividends and recommendation of final dividends

## Finance, governance and controls

- Review and approval of internal control and risk management systems
- Approval of significant projects, contracts and disputes
- Approval of financing policy including the issue of shares and significant borrowings
- Appointment or removal of the auditors and determination of the audit fee
- Oversight and approval of Directors' conflicts of interests
- Rules and procedures for regulating dealing in the Company's shares by its employees and Directors

## Succession planning and reward

- Ensuring adequate succession planning is in place
- Appointments of Directors to the Board and its committees
- Appointment or removal of the Company Secretary
- Approving and recommending to shareholders the terms of employee share schemes, and approving significant changes to pension schemes
- Approval of remuneration of senior management

## Board attendance

During the year, the Board held 11 scheduled Board meetings, and 4 Board meetings on short notice. Individual attendance at the scheduled Board meetings is set out below.

A Board dinner is often held around Board meetings to allow for more informal discussion, and on site visits the Board are often joined by local management.

Attendance	Appointment	Number of scheduled meetings attended in FY16	Maximum possible scheduled meetings in FY16	% of scheduled meetings attended
Alex Hambro, Chair	December 2013	11	11	100%
Susan Searle, Senior Independent Director	December 2013	11	11	100%
Basil Brookes, Non-Executive Director <sup>1</sup>	December 2013 (resigned July 2016)	9	10	90%
Malcolm Pye, Chief Executive Officer	December 2013	11	11	100%
Roland Bonney, Chief Operating Officer	December 2013	11	11	100%
Mark Plamplin, Chief Financial Officer	December 2013	11	11	100%

<sup>1</sup> Basil Brookes was unable to attend the scheduled Board meeting held on 7 July 2016 for health reasons.

## Board activities in the year

At each scheduled Board meeting, the following standing items are considered:

### Standing agenda items

- **Notice, quorum, Directors' duties and any conflicts of interest**
- **Approval of minutes** of previous meeting and review of **action points** from previous meetings
- **Review of Management Information Pack**, which includes monthly group management accounts, outlook, cash flow forecast, financial covenant forecast, share price performance, shareholder and trading report, and monthly headcount
- **CEO/COO update**, comprising an update on strategic matters and significant developments from the Executive Directors
- **Review of Capex Project Report**, tracking expenditure and payback on significant capex investments. In FY16 these reports covered the vaccine manufacturing facility at Braintree, UK and SalmoBreed Salten
- **Review of Deal Tracker**, updating on potential acquisitions, licensing deals and other exceptional transactions
- **Review of BVL Business Development Update**, tracking Benchmark Vaccines' manufacturing pipeline
- **Consideration of any Matters Reserved for the Board**
- **Review of People Report**, summarising vacancies, management appointments, and updating on implementation of People Team strategy
- **Review of Health and Safety Report**, giving an overview of accident and near miss reporting, and tracking Health and Safety performance
- **Review of Compliance Report**, summarising and tracking compliance initiatives and issues, and an update on legal, IP, litigation and Company secretarial matters
- **Review of Communications Report**, summarising announcements, media coverage, and other shareholder events



In addition to the standing items, an overview of the principal matters considered by the Board in the year is set out below.

## Strategy and operations

- Discussed the **Group's strategy for FY17**, including strategy for developing target growth markets and implementation of the Group's key account management programme
- Reviewed and approved the **Group budget** for FY16
- Received **presentations from the heads of each of the Advanced Animal Nutrition, Breeding and Genetics and Animal Health divisions**, including 3-year strategic plans, opportunities for growth and investment proposals
- Received **presentations from INVE Aquaculture senior management** following the acquisition, including overview of the business, target products and markets, and analysis of synergies
- Received **regular reports on integration and synergies**, including key account management, changes to the composition of the Operations Board, and synergistic new business development across Animal Health, Breeding and Genetics and Advanced Animal Nutrition divisions
- Received **presentation on big data project**, designed to utilise big data to generate advanced diagnostic tools and improve animal production
- Discussed **biosecurity and risk mitigation strategy in Breeding and Genetics division** and proposals for broodstock sites
- Received **regular updates on the closure of the Chilean border** to salmon eggs from Iceland, as well as algal bloom in Chile and drought in Asia, and expected impact on the business
- Discussed expected effects of **Brexit** and risk mitigation strategies
- Received presentation on the **Sustainability Science division**, including an overview of the business, and plans for restructuring and consolidation, which have now been completed

## Governance and risk

- Discussed the **effect of currency** movements on the business, and hedging
- Received **presentation from Group Health and Safety manager**, including overview of current situation and strategy
- Reviewed **results of comprehensive bottom-up risk review** and recommended actions, including identification and mitigation of principal risks capable of having an impact at Group level, and overview of Group risk profile using weighted scoring (having regard to severity of impact, likelihood of occurrence and existing controls)
- Reviewed **key terms of Group insurance** policies
- Approved amendments to the Group's **Share Dealing Code**, in part to reflect implementation of EU Market Abuse Regulation
- Reviewed and approved amendments to the **Matters Reserved for the Board**, introducing division specific thresholds for identifying material decisions
- Reviewed the performance of the Company against the **UK Corporate Governance Code**

- Received **updates on key regulatory developments**, including new Market Abuse Regulations, Insurance Act 2015, gender pay gap reporting and PSC (persons exercising significant control) regime
- Received **training on Directors' responsibilities** from Numis
- **Report from the Chair of the Audit Committee on the FY15 audit process** and principal matters discussed with the auditors
- Approved the **appointment of KPMG as auditors** to the Company, following a tender process

## Shareholders

- **Approved Annual Report and Accounts and interim results**
- Received **feedback from investor meetings** held following the equity fundraising to fund the acquisition of INVE Aquaculture, release of results, and placing
- Received **presentation from investor relations advisers** Tavistock on brand development and shareholder communications
- **Approved appointment of Numis as NOMAD and Broker.** Received presentation from Numis, including analysis of shareholder base, valuation and peer group analysis

## Research and development

- Received **Pipeline Reports** from Benchmark Animal Health on a quarterly basis, providing an overview of and updates on the product pipeline (from June 2016)
- Received **presentation from head of the Animal Health division** on the product development pipeline, including its strategic focuses, progress with late-stage and significant products, and implementation of a new project management system

## Acquisitions, licensing deals and transactions

- Approved the **acquisition of INVE Aquaculture**, and related equity fundraising and debt facilities
- Approved **licensing deals** for Canine Atopic Dermatitis vaccine, and Sweet Itch equine vaccine
- Approved **equity placing** to raise £30.7m, to fund construction of SalmoBreed, Salten, joint venture with major salmon producer, acquisition of specialist shrimp breeding programme, investment in product pipeline

## People

- Received **presentation from Head of People** regarding People Team strategy, including attracting and retaining the right people, succession planning, leadership development and projects to identify and nurture key persons within the business, and talent development programme
- Discussed, with Head of People present, the **culture and values** of the Group and how these cascade through the Group, including the use of induction days and vision workshops

## EFFECTIVENESS

### Nomination Committee Report

The Nomination Committee is responsible for safeguarding the effectiveness of the Board by regularly reviewing its composition, and leading a rigorous and transparent process for the identification and appointment of new Directors.

Its key responsibilities are:

- To review the composition of the Board, including its size, balance of skills, knowledge, experience and diversity
- To lead the process for Board appointments and recommend the appointment of new Directors
- To review the re-appointment of Non-Executive Directors
- To make recommendations on the composition of the Board Committees
- To consider succession for Board members and senior management

The Nomination Committee's terms of reference are reviewed annually and a summary of these is available on the Corporate Governance section of our website at [www.benchmarkplc.com](http://www.benchmarkplc.com).

#### Composition of Nomination Committee and attendance in the year

Member Attendance	Appointment	Number of meetings attended in FY16	Maximum possible meetings in FY16	% of meetings attended
Alex Hambro, Chair	December 2013	2	2	100%
Susan Searle	December 2013	2	2	100%

In addition to the scheduled meetings of the Nomination Committee, discussions were held at the Board Strategy Day in September 2016 regarding the composition and diversity of the Board.

Only the members of the Nomination Committee have the right to attend meetings. The Head of People, other Board members and external advisers may be invited to contribute on specified agenda items. The Company Secretary acts as a secretary to the Nomination Committee. The Nomination Committee encourages discussion in the full Board forum of certain of the matters for which it is responsible, including the composition and diversity of the Board and succession planning.

#### Nomination Committee activities during the year

The Nomination Committee's principal focus in FY16 was the replacement of Basil Brookes, who retired from the Board in July 2016 for health reasons. The Committee ensured that a well-defined specification for the new appointment was formulated, having regard to the skills, expertise and values required to ensure effective functioning of the Board as a whole. As well as the financial expertise required to Chair the Audit Committee, experience in financial management of international business and growth companies was sought. The Nomination Committee appointed external search consultants The Zygos Partnership to assist with the recruitment process. The Zygos Partnership are signatories to the Voluntary Code

of Conduct for Executive Search Firms in Board Appointments, which is designed to address gender and wider diversity on Boards. The Zygos Partnership has no other connections with the Company.

The Nomination Committee also assessed the composition of the Board and its committees on an interim basis, including the option to appoint an external consultant to advise the Audit Committee in the absence of its usual Chair. It was determined that Alex Hambro and Susan Searle had sufficient skills and experience to cover the vacant roles on a temporary basis; Susan sits on the Audit Committee of QinetiQ Group plc, and has previously chaired the Audit Committees of both Mercia Technologies plc and Horizon Discovery Group plc. Accordingly, temporary appointments were made to ensure that each of the Board committees maintained an appropriate composition and the requisite experience. Alex Hambro stepped up to Chair the Audit Committee, and Susan Searle was appointed on an interim basis to the Audit Committee. Susan Searle remained Chair of the Remuneration Committee, and Alex Hambro was appointed on an interim basis to the Remuneration Committee.

Following a successful recruitment process, Kevin Quinn was appointed as Non-Executive Director, Chair of the Audit Committee and member of the Remuneration Committee, in November 2016.

The Nomination Committee also led discussion at the Board Strategy Day regarding the composition of the Board, having regard to its recent growth through the acquisition of INVE Aquaculture, and increased presence and opportunity in global markets. It was recognised that it would be desirable to increase Board diversity when the opportunity arose, particularly having regard to the international nature of the Group's operations.

Succession planning for senior management is a focus for the Group, and the People Team are leading a programme to identify and foster talent within the business, which includes the provision of leadership training and development of individual success factors.

#### Action plan for the coming year

In the coming year, the Nomination Committee intends to:

- Keep the composition of the Board under review, to ensure that its size, balance of skills, knowledge and experience remain suitable for the needs of the Group
- Undertake a Board evaluation process to review performance and seek opportunities for improvement. The Board last undertook a self-evaluation process to review its composition and performance in 2015
- Ensure that, where opportunities arise, the Group's goal to increase diversity at Board and senior management level is considered

**The Hon Alexander Hambro**  
Chairman of the Nomination Committee  
24 January 2017



## Board composition

The Board comprises six Directors; a Non-Executive Chairman, Senior Independent Director, further Non-Executive Director, and three Executive Directors.

On 29 July 2016, Basil Brookes (Non-Executive Director) stepped down from the Board for health reasons. The Board implemented its succession plan and promptly commenced a recruitment process to find a Non-Executive Director with appropriate skills and experience to replace Basil, and Kevin Quinn was appointed on 25 November 2016. In the interim period the Board comprised five Directors; a Non-Executive Chairman, Senior Independent Director and three Executive Directors. All resolutions passed by the Board during this interim period in which there were three Executive Directors and two independent Non-Executive Directors, were passed unanimously.

The size and composition of the Board was reviewed during the year by the Nomination Committee and by the Board. The Group's recent growth through the acquisition of INVE Aquaculture, and increased presence and opportunity in global markets were discussed. The Board determined that the composition of the Board remains suitable for the Group, and contains an appropriate breadth and balance of skills, knowledge, experience and independence. The Board also identified that it would be desirable to increase Board diversity when the opportunity arose, particularly having regard to the international nature of the Group's operations.

## Directors' roles and responsibilities

Biographical details for all members of the Board can be found on pages 62 to 63 of this report.

There is a clear separation between the roles of Chairman and Chief Executive Officer.

The role of the Chairman is to:

- Lead the Board to ensure effective functioning in all aspects of its role
- Promote an open culture of debate
- Ensure that the membership of the Board is appropriate for the needs of the business
- Oversee Board committees as they carry out their duties, including reporting to the Board
- Set and manage the agenda for Board meetings
- Ensure the provision of information necessary for Directors to take a full and constructive part in Board discussions
- Develop and maintain effective communications with shareholders
- Establish appropriate personal objectives for the Chief Executive Officer
- Ensure the Directors are up to date and receive suitable training and development

The role of the Chief Executive Officer is to:

- Oversee operation of the day-to-day business of the Group
- Lead the development and delivery of strategy and budget, to enable the Group to meet the requirements of its shareholders
- Lead and oversee the executive management of the Group

- Establish an environment which allows the recruitment, engagement, retention and development of the people needed to deliver the Group's strategy

The Senior Independent Director provides a sounding board for the Chairman and serves as an intermediary for the other Directors when necessary. The Non-Executive Directors meet regularly throughout the year without the Executive Directors present.

## Induction, business awareness and development

The Chairman is responsible for ensuring that new Directors receive a comprehensive and formal induction. This includes:

- An overview of the Group, its functions and governance framework
- Briefings on Directors' responsibilities and compliance responsibilities
- Site visits to key Group locations
- Detailed reviews of the strategic projects and initiatives underway
- One-to-one meetings with senior management

Kevin Quinn was appointed on 25 November 2016 and is receiving a formal induction covering the above aspects, with a focus on financial matters, as well as meetings with key members of the finance team.

In order that Directors further their understanding of the business, its ambitions and the challenges it faces, and are able to challenge and help develop strategy constructively, Non-Executive Directors are encouraged to visit Group locations and have regular opportunities to meet senior management. During the year, the Non-Executive Directors visited the following sites:

FAI Farms — Oxford, UK	Benchmark's founding site, hosting the Sustainability Science division and a working research farm
Benchmark Head Office — Sheffield, UK	Benchmark's head office, hosting the finance team and publishing teams within the Technical Publishing division
Benchmark Animal Health — Edinburgh, Scotland, UK	Location of Benchmark Animal Health's product development team
INVE Aquaculture — Dendermonde, Belgium	INVE Aquaculture's global headquarters and R&D team
TomAlgae — Nevele, Belgium	TomAlgae's algae production facilities
Benchmark Vaccines — Braintree, UK	Benchmark Vaccine's state-of-the-art vaccine manufacturing suite
FAI Aquaculture — Ardtoe, Scotland, UK	FAI Aquaculture's advanced marine research facility

The Board also received a number of presentations from senior management throughout the year, including from the Heads of Division of each of the Animal Health, Advanced Animal Nutrition and Breeding and Genetics divisions, the Head of People and Group Health and Safety Manager.

During the year, the Board received training on Directors' responsibilities from Numis and updates on key regulatory developments, including new Market Abuse Regulations, Insurance Act 2015, gender pay gap reporting and PSC (persons exercising significant control) regime.

## Independence of Non-Executive Directors

The Board considered each Non-Executive Director's independence on appointment, and concluded that they were independent. The Board reviews independence on an annual basis and has concluded that the Non-Executive Directors all remain independent.

Non-Executive Directors are appointed for specified terms, subject to re-election by shareholders, and terms beyond 6 years are subject to rigorous review. Accordingly, Non-Executive Directors are appointed for a maximum of two terms of 3 years, and thereafter may serve for an additional period only at the invitation of the Board following scrutiny of their continued independence. Alex Hambro and Susan Searle were appointed for a second 3-year term commencing 18 December 2016, subject to re-election by shareholders. The respective periods of service of our Non-Executive Directors are set out below.

Name	Date of appointment	Term
Alex Hambro Chair	18 December 2013	3 years, 2 months
Susan Searle Senior Independent Director	18 December 2013	3 years, 2 months
Kevin Quinn Non-Executive Director	25 November 2016	2 months

## Conflicts of interest

Directors are obliged to seek authorisation from the Board before taking up any position which conflicts, or which may conflict, with the interests of the Company. The Board is empowered to authorise situations of potential conflict, where it sees fit, in order that a Director is not in breach of his/her duties.

The interested Director is excluded from voting on the resolution to authorise the conflict. The Directors may resolve that any such transaction or arrangement be subject to such terms as they may determine. All existing external appointments and other such situational conflicts of Directors have been considered and authorised by the Board.

All Directors are required to ensure that their external appointments do not involve a time commitment that would adversely affect their responsibilities to the Company.

If a Director is a party to or otherwise interested in any actual or proposed transaction or other arrangement with the Company, or in which the Company is otherwise interested, the Director is obliged to declare his/her interest in the transaction or arrangement. The Directors may resolve that any such transaction or arrangement be subject to such terms as they may determine. Where the interest is material, the interested Director will not be permitted to vote on decisions relating to the matters in which he/she has an interest.

## Information and independent professional advice

The Company Secretary assists the Chairs of the Board and each of the Nomination Committee, Remuneration Committee and Audit Committee to ensure that the Directors have access to the information and advice they require to carry out their roles effectively.

The Directors have access to independent professional advice at the Company's expense. In addition, they have access to the services of the Company Secretary, who is responsible for advising the Board on corporate governance matters.

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## ACCOUNTABILITY

### Audit Committee Report

The composition of the Audit Committee up to 19 July 2016 was:

- Basil Brookes (Chair)
- Alex Hambro

On 29 July, Basil Brookes announced his retirement from the Audit Committee for health reasons. Susan Searle was temporarily appointed to the committee and Alex Hambro was temporarily appointed Chairman of the committee pending the recruitment of Basil's successor. Subsequent to the year end on 25 November 2016, Kevin Quinn was appointed Chairman of the Audit Committee and Susan Searle stepped down from the committee. Kevin is serving Chief Financial Officer of a FTSE 250 plc and a qualified Chartered Accountant and hence is considered a financial expert. Further information on Kevin's relevant experience is provided on page 63. We would like to thank Basil for his valuable contribution to the Audit Committee over the past 3 years.

All Committee members are independent Non-executive Directors.

In addition to the Committee members, there are a number of regular attendees at each meeting. The Chief Financial Officer (CFO) and lead external audit partner normally attend all scheduled Audit Committee meetings. The Audit Committee members regularly take time before or after a meeting, without any Executive Directors or senior management present, to raise any questions and discuss issues with the external auditor. The Chairman of the Audit Committee meets the CFO and the external auditor separately to review current issues and developments prior to each meeting of the Audit Committee, such meetings often taking place by telephone.

### Key objective

To ensure that the interests of shareholders are properly protected in relation to financial reporting and internal controls.

## Responsibilities

During the year the main responsibilities were:

- To review accounting policies and the integrity and content of the financial statements;
- To monitor disclosure controls and procedures and the Group's internal controls;
- To consider the adequacy and scope of external audits;
- To oversee a tendering exercise and appoint the new external auditor;
- Considering and recommending that the Annual Report and Accounts 2015/16, when taken as a whole, are fair, balanced and understandable;
- To monitor the objectivity, independence and effectiveness of the external auditor, including the scope and expenditure on non-audit work;
- To review and approve the statements to be included in the Annual Report on internal control and risk management;
- To review and report on the significant issues considered in relation to the financial statements and how they are addressed.

The Committee's terms of reference are reviewed annually and a summary of these are available on the Governance section of our website at [www.benchmarkplc.com](http://www.benchmarkplc.com).

## Actions undertaken during the year

The key activities for the Committee for the period under review are set out below.

### External auditor

In light of the rapid recent growth in the size and scale of the Benchmark Group, and with a view to implementing best corporate governance practice regarding auditor independence and the split of audit and non-audit work, the Board made the decision to put the position of external auditor out to tender. The Audit Committee led a full and formal tender process after which KPMG were appointed effective from 26 May 2016.

Following the appointment, in accordance with section 519 of the Companies Act 2006, BDO deposited with the Company a statement confirming that there are no circumstances in connection with its resignation as auditor that should be drawn to the attention of the Company's shareholders.

A review of the annual audit plan and process has been undertaken with the lead audit partner. The robustness of the audit process and service levels provided was rigorously assessed during the tender process and following the first full year audit, with significant input sought from senior management and others involved in the audit process across the business. Following best practice in promoting auditor independence, separate tax advisers have been engaged during the year, and non audit fees payable to the external auditor (and the outgoing external auditor) were monitored throughout the year and their level were taken into account, amongst other criteria, when awarding non audit work.

The independence, objectivity and performance of the external auditor was assessed and the Committee recommended to the Board that their reappointment as the auditors of the Company be recommended to shareholders at the Annual General meeting of the Company to be held on 7 March 2017.

## Presentation of results

At the request of the Board, the Committee reviewed the presentation of the Group's unaudited results for the six months ended 31 March 2016 and the audited results for the year ended 30 September 2016 to ensure they were fair, balanced and understandable and provide sufficient information necessary for shareholders and other users of the accounts to assess the Group's position and performance, business model and strategy. Particular attention was paid to the presentation of the results and the separation of the statutory IFRS results into Trading Activities and Investing Activities. The board continues to regard this as an appropriate way to present the underlying performance and development of the business and this is how it monitors progress of the existing group businesses. Trading Activities are those related to products and services that have been developed and are producing revenue streams, while Investing Activities relate to the costs associated with acquiring new businesses and products and services being developed for future revenue streams and include a pipeline of vaccines at various stages of the development cycle.

### Acquisition accounting

The Committee considered the acquisition accounting for the transformational acquisition of INVE Aquaculture which took place in December 2015. Particular attention was paid to the identification, measurement and assessment of the intangible assets arising on acquisition, with independent valuations being sought for those assets, and the assumptions behind those valuations being subjected to very close scrutiny with both the CFO and the external auditor.

### Management override of internal controls

The Committee considered the inherent risk of management override of internal controls as defined by auditing standards. In doing so the Committee continue to review the overall robustness of the control environment, including consideration of the Group's whistleblowing arrangements and the review by the external auditor.

Following the acquisition of INVE, integration of the business has progressed well and work is continuing to identify and implement best practice controls across the enlarged business. No major weaknesses have been identified in this process.

### Goodwill and intangible assets impairment review

The Committee considered the carrying value of the Group's businesses, including goodwill and intangible assets. The Committee reviewed management's recommendations, which were also reviewed by the external auditor, including an evaluation of the appropriateness of the assumptions applied in determining asset carrying values and the appropriateness of the identification of cash generating units. After review the Committee was satisfied with the assumptions and judgements applied by management and concluded that no impairment of carrying values was required.

### Revenue recognition

The Committee considered the inherent risk of fraud in revenue recognition as defined by auditing standards and was satisfied that there were no issues arising.

### Going Concern

The Committee was presented by management with an assessment of the Group's future cash forecasts and profit projections, available facilities, facility headroom, banking covenants and the results of a sensitivity analysis. The Committee discussed the assessment with management and was satisfied that the going concern basis of preparation continues to be appropriate for the Group and advised the Board accordingly.

### Risk management

Effective risk management and control is key to the delivery of the Group's business strategy and objectives. Risk management and control processes are designed to identify, assess, mitigate and monitor significant risks, and can only provide reasonable and not absolute assurance that the Group will be successful in delivering its objectives. The Board is responsible for the oversight of how the Group's strategic, operational, financial, human, legal and regulatory risks are managed and for assessing the effectiveness of the risk management and internal control framework.

Work has continued to ensure that risk management is embedded in the Group's procedures and significant further work has been done to update the Risk Register and to re-affirm the effectiveness of risk management procedures following the INVE acquisition.

A description of the Group's risk management procedures and the work completed in the year is provided in the Principal Risks and Uncertainties section on pages 56 to 59.

### Internal audit

Following the acquisition of INVE, the size, scale and complexity of the Group has increased. As noted above, significant work has been performed on the Risk Register and the Committee continues to monitor whether an internal audit function could be justified. During the year the decision was made not to set up such a function while work was ongoing to assess the risks of the enlarged Group. This matter will be reconsidered in the forthcoming year.

### Safeguards and effectiveness of the external auditor

The Committee recognises the importance of safeguarding auditor objectivity. The following safeguards are in place to ensure that auditor independence is not compromised:

- The Audit Committee carries out an annual review of the external auditor as to its independence from the Group in all material respects and that it is adequately resourced and technically capable to deliver an objective audit to shareholders. Based on this review the Audit Committee recommends to the Board the continuation, or removal and replacement, of the external auditor;
- The decision was made in the year to split the role of tax advisor and external auditor;
- The external auditor may provide audit-related services such as regulatory and statutory reporting as well as formalities relating to shareholder and other circulars;
- The external auditor may undertake due diligence reviews and provide assistance on tax matters given its knowledge of the Group's business. Such provision will be assessed on a case-by-case basis so that the best adviser is retained. The Audit Committee monitors the application of policy in this regard and keeps the policy under review;
- The Audit Committee reviews on a regular basis all fees paid for audit and consultancy services with a view to assessing the reasonableness of fees, value of delivery and any independence issues that may have arisen or may potentially arise in the future;
- The external auditor reports to the Directors and the Audit Committee regarding its independence in accordance with Auditing Standards. KPMG's policy is that audit partners are required to be rotated every fifth year, and audit senior management require approval from the Engagement Partner and Engagement Quality Control Reviewer to continue after seven years, and approval from the UK Audit Risk Management Partner to continue after 10 years, but such approval will be rare and only likely for 1 or 2 years;
- Different teams are used on all other assignments undertaken by the auditor;
- Non-audit services carried out by the external auditor are generally limited to work that is closely related to the annual audit or where the work is of such a nature that a detailed understanding of the business is beneficial;
- The Audit Committee monitors these costs in absolute terms and in the context of the audit fee for the year, in order to ensure that the potential to affect auditor independence and objectivity does not arise. The Committee does not adopt a formulaic approach to this assessment. The split between audit and non-audit fees for 2016 and information on the nature of the non-audit fees incurred is detailed in Note 6 accompanying the consolidated financial statements.

The Audit Committee monitors the effectiveness of the external audit functions. To comply with this requirement, the Committee reviews and comments on the external audit plans before it approves them. It then considers progress during the year by assessing the major findings of their work, the perceptiveness of observations, the implementation of recommendations and management feedback. At the request of the Board, the Committee also monitors the integrity of all financial statements in the Annual Report and half year results statements, and the significant financial reporting judgements contained in them. Further details of the Committee's procedures to review the effectiveness of the Group's systems of internal control during the year can be found in the section on effective risk management and internal control below. The Committee recognises that all financial statements include estimates and judgements by management. The key audit areas are agreed with management and the external auditors as part of the year-end audit planning process. This includes an assessment by management at both a business unit and Group level of the significant areas requiring management judgement. These areas are reviewed with the auditors to ensure that appropriate levels of audit work are completed and the results of this work are reviewed by the Committee.

## Effective risk management and internal control

One of the Board's key responsibilities is to ensure that management maintains a system of internal control which provides assurance of effective and efficient operations, internal financial controls and compliance with law and regulation. The Group's systems are designed to identify key financial and other risks to the Group's business and reputation, and to ensure that appropriate controls are in place. Consideration is given to the relative costs and benefits of implementing specific controls.

### Assurance

On behalf of the Board, the Audit Committee examines the effectiveness of:

- The systems of internal control, primarily through reviews of the financial controls for financial reporting of the annual, preliminary and half yearly financial statements and a review of the nature, scope and reports of external audit;
- The management of risk by reviewing evidence of risk assessment and management; and
- Any action taken to manage critical risks or to remedy any control failings or weaknesses identified, ensuring these are managed through to closure.

The Audit Committee has completed its review of the effectiveness of the Group's systems of internal control during the year. It confirms that the necessary action plans to remedy identified weaknesses in internal control are in place and have been throughout the year. Where appropriate, the Audit Committee ensures that necessary actions have been, or are being, taken to remedy or mitigate significant failings or weaknesses identified from the review of effectiveness of internal controls. The Group's internal controls over the financial reporting and consolidation processes are designed under the supervision of the CFO to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of the Group's published financial statements for external reporting purposes in accordance with IFRS.

Because of its inherent limitations, internal control over financial reporting cannot provide absolute assurance and may not prevent or detect all misstatements whether caused by error or fraud. The Group's internal controls over financial reporting and the preparation of consolidated financial information include policies and procedures that provide reasonable assurance that transactions have been recorded and presented accurately.

Management regularly conducts reviews of the internal controls in place in respect of the processes of preparing consolidated financial information and financial reporting. During the year ended 30 September 2016, there were no changes to the internal controls over these processes that have or are reasonably likely to materially affect the level of assurance provided over the reliability of the financial statements.

## Risk management and internal control system features

### Risk management control system

As well as the risks that management identify through the ongoing processes of reporting and performance analysis, the Audit Committee has additional risk identification processes, which include:

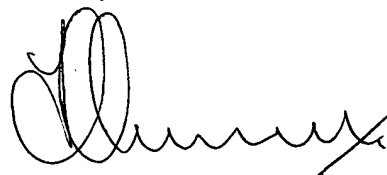
- Risk and control process for identifying, evaluating and managing major business risks. During the year, the CFO oversaw an exercise to evaluate the risks faced by the business following the acquisition of INVE and to identify suitable mitigating actions;
- External audit reports, which comment on controls to manage identified risks and identify new ones;
- A confidential whistle-blowing helpline and an email address available for employees to contact the Non-executive Directors in confidence.

### Internal control system

The internal controls which provide assurance to the Committee of effective and efficient operations, internal financial controls and compliance with law and regulation include:

- A formal authorisation process for investments;
- An organisational structure where authorities and responsibilities for financial management and maintenance of financial controls are clearly defined;
- Anti-bribery and corruption policies and procedures and a dedicated email hotline, designed to address the specific areas of risk of corruption faced by the Group;
- A comprehensive financial review cycle where the annual budget is approved by the Board and monthly variances are reviewed against detailed financial and operating plans.

**Kevin Quinn**  
Chairman of the Audit Committee  
24 January 2017



## REMUNERATION

### Remuneration Report for year ended 30 September 2016

#### Statement from Susan Searle, Chairman of the Remuneration Committee

This year has marked a major transformation for the business with the early months focused on the acquisition of INVE and its subsequent integration into the wider Benchmark Group. The INVE transaction itself was an extraordinary deal to deliver and to achieve that alongside a major equity and debt raise was testament to the management team's sheer hard work and conviction in building out and largely completing the Company's aquaculture platform. The focus through the year has been on merging the teams, drawing out the synergies through integration and innovation and all whilst continuing to deliver results despite some major headwinds. The end of the year saw the purchase of shrimp breeding programme from Ceniagua, another astute deal complementing both the original business but also bringing with it the opportunity to leverage the commanding sales presence INVE has in shrimp farm hatcheries.

The team has assembled some high quality IP assets and a platform that will deliver long-term shareholder value. The investment in infrastructure is ongoing with major capital projects, such as the vaccine production plant at Braintree and SalmoBreed Salten requiring considerable management oversight in building the footprint for a substantial business. Not all has gone to plan, the share price suffered during the year but has recovered and a modest equity raise primarily to finance SalmoBreed Salten was done at a difficult time. The Salten investment will attract and cement partnerships with several large customers and is part of the strategy for scaling the future revenue streams. The executive team made some difficult decisions that should result in greater value for shareholders in the long run.

I have reported in the past that the Executive Directors have been compensated considerably behind prevailing market rates, particularly in terms of base salary. In 2016 the Group ended the year with 884 people, £109.4m turnover and market cap at 31 December 2016 of £433m. This is a long way from the 200 people, £25m turnover and market cap of £212m in 2015. The board believes it has an exceptionally talented executive team who continue to build an outstanding business and are motivated to build long-term value. A major component of future success will be to continue to build the human talent pool and to do that the Group must pay competitive salaries. MM&K were charged with reviewing the Executive Directors' salary package and a decision has been taken to move base salaries to the lower quartile of AIM/main list companies where the midpoint is in a comparable turnover range. This is a significant change to the executive team's base salaries and a material corrective step. The objective over the next 2–3 years is to further move the team to median salaries for the relevant range as the expected synergies are demonstrated, the business scales and the aquaculture platform is validated.

In reviewing the bonus provisions for Executive Directors, the Remuneration Committee noted the team had delivered in line with the Board's expectations on the numbers and delivered in all four areas set out in the remuneration policy

on page 75 of this report. This had to be balanced against the fact that this progress was not reflected in the share price and that the decision to do a modest equity raise in August was not well received by some of our shareholders. Alex Hambro and I visited many of our significant shareholders during the summer and took their feedback into consideration when trying to strike the right balance.

The Remuneration Committee believes it has been a momentous year for both the Company and the executive team who have displayed entrepreneurial and determined leadership throughout the year and should be congratulated for delivering an impressive business with considerable scope for growth with the assets they have assembled.

Susan Searle  
Chairman of the Remuneration Committee  
24 January 2017



#### Remuneration Committee overview

The composition of the Remuneration Committee during the year was:

- Susan Searle (Chair)
- Basil Brookes
- Alex Hambro

The Committee comprises two independent Non-Executive Directors with the Company Secretary acting as secretary and the Head of People attending committee meetings to provide advice on policies and practices. At appropriate times, the Committee invites the views of the Chief Executive and Chairman of the Board, and seeks advice from independent remuneration consultants. No Director or employee is present when his or her own remuneration or fees are discussed.

**Key objectives:** The key objectives of the Remuneration Committee are to develop the Company's policy on executive remuneration and to fix the remuneration of the Executive Directors, Chairman of the Board and Senior Managers.

**Responsibilities:** The main responsibilities of the Committee are:

- To monitor and develop the Company's remuneration policy
- To determine the remuneration of the Executive Directors
- To approve the service agreements of the Executive Directors
- To approve the remuneration of Senior Managers
- To determine the fees of the Chairman
- To review the Company's annual bonus proposals and to approve bonuses for the Executive Directors and Senior Managers
- To approve the design of and oversee all awards under the Company's share incentive plans
- To consider risks to the Group in light of its remuneration policies



An overview of the Remuneration Committee's terms of reference is available on the Governance section of our website at [www.benchmarkplc.com](http://www.benchmarkplc.com).

**Actions undertaken during the year:** With the acquisition of INVE in December 2015 and the purchase of shrimp breeding programme from Ceniagua in August 2016, the number of employees moved from 402 to 884 (120% increase in headcount) and the number of countries where the Group has offices increased from 14 to 27, overlapping with INVE in 3 countries. With this in mind the Remuneration Committee has instigated a review of terms and conditions across the Group. In addition, talent management and succession planning has become a priority. Benchmark operates within a highly technical industry and wants to ensure that it has the very best people to drive forward innovation across the divisions of Breeding and Genetics, Advanced Animal Nutrition and Animal Health. The responsibilities of the committee were also reviewed during the year.

### Directors' Remuneration Policy

The Group's policy is unchanged and seeks to balance three key objectives:

- To pay reasonably competitively in the relevant talent markets to sustain motivation and commitment, recognising that Benchmark has a unique culture and staff join and remain with Benchmark in order to share in the Company's vision for sustainability and participate in the important work it does
- To remunerate in a way that makes economic sense for the Company, ensuring there is a fair balance of return to the executive team, management, staff and shareholders for their contributions to the Company's success
- To encourage the cooperative behaviours which promote business priorities and lead to high performance

The Company's remuneration policy supports a climate of team involvement and generates a shared enthusiasm for the growth and success of the Group as a whole. It encourages cooperation, sharing of ideas and mutual support between people in different business units. The policy reflects and supports the sense that the Group is involved in creating and delivering services which benefit mankind and the natural environment. It also recognises that the non-monetary rewards of team membership, intellectual stimulation, freedom, creativity and producing something worthwhile, have equal or higher place in maintaining personal commitment and in attracting and retaining the best people.

### Remuneration policy

The Executive Directors' remuneration comprises fixed elements in the form of a base salary, benefits and pension contributions, and a variable discretionary element in the form of a bonus, which may be satisfied in cash, deferred shares (or nominal cost share options) or a combination of both. The Company has long-term share plans in place but does not intend to make awards to the Executive Directors this year.

### Fixed elements of remuneration

The fixed elements of the Executive Directors' remuneration are designed to attract and retain Directors of the appropriate calibre, with the requisite knowledge, skills and experience, and to sustain motivation and commitment.

Following a further review by MM&K the Remuneration Committee has concluded that the appropriate benchmark for the Executive Directors' salaries is lower quartile for AIM/main listed companies falling in the turnover range £101–300m and has also reviewed comparators in the market cap range. The Executive Directors' salaries from IPO have been substantially below those of their peer group. The Remuneration Committee concluded that this is no longer tenable or appropriate, particularly as the Group seeks to attract in further high calibre talent and pays competitive compensation. The Directors are running a very different company in size and scale from that which listed in 2014. Accordingly this year the Executive Directors base salaries have been significantly adjusted. Over the next 2–3 years the Company expects to be at median for the comparator range once the combined business demonstrates clearly on its plans and this is reflected in valuation.

The Executive Directors all participate in defined contribution pension schemes on terms consistent with those of other employees. The Company contributes up to 10% of the employee's salary, starting at 5% and increasing by 1% for every 3 years of service. The Executive Directors also receive private medical insurance for themselves and their families and death in service benefits.

### Variable elements of remuneration

Executive Directors are eligible for an annual performance bonus, part of which may be deferred for three years and paid in shares or nominal cost share options. The maximum award, including any deferred element, is 100% of salary. The bonus is designed to reward and incentivise success leading to sustainable long-term growth and to recognise the Directors' commitment to the business. Performance is measured by reference to four key metrics, set out below.

- Progress towards the Group's objectives of mid to long-term growth in revenue and trading earnings per share
- Successful and secure investment of the Group's available capital in long-term revenue and generation of EBITDA from trading activities
- Building on the Group's track record of recruiting the highest calibre and most appropriate people, in terms of skills and experience
- Establishing a strong and long-lasting leadership position in the development of sustainable food and farming internationally

The Remuneration Committee exercises judgment in assessing performance against these metrics when setting bonus levels for the Executive Directors. The remuneration of senior management is also taken into consideration. The bonus is discretionary and no element of the bonus is guaranteed. Long-term incentive plans may be used to supplement the variable elements of the total reward.

## Statement of consideration of employment conditions elsewhere in the Group

Historically, the salaries across the Group have been increased annually by reference to the retail price index. In 2016, the average salary increase across the Group including senior management was 4%. This percentage rise included adjustments made for additional responsibilities taken on by staff as the Group's activities expanded. The entitlements of the Executive Directors to pension contributions are the same as those of employees. Bonuses for employees are determined on a discretionary basis, by reference to a combination of Group and individual performance. Senior Managers' bonuses for 2016 will be paid part in cash, and part will be deferred and satisfied in nominal cost share options (other than where the individual is already a substantial shareholder in the Company).

The Company expects and encourages everyone in the team to have an interest in the Company's shares in order to foster a culture of cooperation and shared participation in the Group's achievements and the remuneration policy supports this by issuing share options to employees at a level that reflects the strategic contribution of their role. Following the successful acquisition of INVE the Company issued 3,093,493 nominal cost share options (0.65% of issued share capital) to 419 employees that were new to the Group and 31 senior managers, excluding the Executive Directors. The grant is in line with the Company's historic remuneration policy, which has seen options granted across the workforce at times of significant achievement in the Company's development.

## Executive Directors' service contracts and remuneration on termination

Each Executive Director contract commenced on 18 December 2013 and is terminable by either party on 12 months' notice at any time, and by the Company at any time and without compensation in case of serious misconduct, breach of duty or in similar circumstances.

In the event of termination by the Company without cause, the Executive Director is entitled to receive payment of salary for any unexpired notice period and any accrued holiday entitlement. In the event of termination for cause, the Director is not entitled to compensation in respect of salary.

The Executive Directors' bonuses are fully discretionary. In the event of termination during a bonus period, the Committee will consider payment of a bonus on a pro rata basis for the relevant portion of the year worked, having regard to the circumstances. Deferred bonuses which have been satisfied in share options remain exercisable where the Executive Director is a good leaver, including in case of death, incapacity, redundancy, retirement, and where the Remuneration Committee so determines. In all other circumstances, deferred bonuses satisfied in share options cease to be exercisable on termination of employment and lapse.

## Non-executive Directors' terms of appointment

The Non-Executive Directors hold office under letters of appointment. Each appointment is for a term of 3 years commencing on 18 December 2013 but with an additional period of 3 years anticipated. All directors are required to stand for re-election at least every three years. In accordance with best practice, all directors stood for re-election at the Annual General Meeting held on 10 March 2016 and all were elected for a further 3 years.

Regrettably, Basil Brookes was forced by ill-health to step down as a Non-Executive Director in July 2016 and on 25 November 2016 Kevin Quinn was appointed as a new Non-Executive Director. Kevin replaced Basil on the Remuneration Committee.

Either the Company or the Non-Executive Director may terminate the appointment on 3 months' notice, and the appointments are subject to the Company's articles of association and to the Director being re-elected by shareholders upon retirement by rotation. On termination as a result of the Non-Executive Director not being re-elected by shareholders or under the articles of association for reasons connected with outside interests or independence, the appointment terminates immediately and the Non-Executive Director is not entitled to compensation. On termination in other circumstances, including on 3 months' notice, a Non-Executive Director is entitled to accrued but unpaid directors' fees to the date of termination but no other compensation.

The dates of appointment of and length of service for each Non-Executive Director are shown in the table below.

Name	Date of appointment	Length of service as at 2017 AGM
Basil Brookes	18 December 2013	Stood down on 29 July 2016
Alex Hambro	18 December 2013	3 years, 2 months
Susan Searle	18 December 2013	3 years, 2 months
Kevin Quinn	25 November 2016	3 months

## Shareholder dilution

The total number of ordinary shares issued and issuable in respect of options granted in any ten year period under the Company's discretionary share option schemes (excluding pre-IPO options under the Enterprise Management Incentive (EMI) scheme) is restricted to 10% of the Company's issued ordinary shares from time to time.

In the financial year ended 30 September 2016 the Company allocated 3,093,493 nominal cost share options (0.65% of issued share capital) to staff including senior management as mentioned on page 76.

## Annual Report on Remuneration for 2016

### Single total figure of remuneration for the financial year ended 30 September 2016.

The remuneration in respect of qualifying services of the Directors who served during the financial year ended 30 September 2016 is as set out below.

## Executive Directors

	Salary	Bonus (a)	Taxable benefits (b)	Long-term incentive	Pension	2016	Total 2015
Roland Bonney	171,250	99,000	2,379	-	16,313	288,942	206,950
Mark Plampin	162,500	93,000	2,374	-	10,883	268,707	200,670
Malcolm Pye	187,500	110,000	3,246	-	17,375	318,121	215,552

(a) The balance of the cash bonuses were paid in January 2017. Mark Plampin has elected to defer 60% of his bonus to be satisfied in nominal cost options.

(b) Benefits provided for all Executive Directors are medical insurance coverage for the Directors and their families, and death in service benefits. Also includes taxable mileage payments as a result of the Company's policy of paying 55p per business mile (10p per mile paid over the HMRC rate of 45p per mile is taxable via P11Ds).

Executive Directors' salaries were reviewed with effect from 1 January 2017. Following a benchmarking exercise undertaken by the Remuneration Committee and having regard to the Group's performance in 2016, the increases awarded are shown on page 78.

## Non-Executive Directors

	2016	Fees 2015
Basil Brookes	35,000(a)(b)	35,000
Alex Hambro	45,000	45,000
Susan Searle	42,500(b)	35,000

(a) For period 1 October 2015 to 29 July 2016.

(b) The fees for Susan Searle and Basil Brookes were reviewed with effect from 1st January 2016 and increased to £45,000 per year.

## Executive Directors' bonuses for the financial year ended 30 September 2016

As described in the Chairman's statement, the Remuneration Committee considered the performance of the Executive Directors against the delivery of long-term sustainable growth and their performance against four KPIs set out on page 75.

Accordingly, the Executive Directors received bonuses in respect of the financial year ended 30 September 2016 as set out below.

	2016	Bonus (£) 2015
Roland Bonney	99,000	55,000
Mark Plampin	93,000(a)	55,000
Malcolm Pye	110,000	55,000

(a) Mark Plampin has elected to defer 60% of the 2016 bonus to be satisfied as nominal cost options.

## Defined contribution pension scheme

The Executive Directors all participate in defined contribution pension schemes. Roland Bonney and Malcolm Pye participate in the Benchmark Holdings Executive Pension Scheme and Mark Plampin participates in a self-invested personal pension (SIPP).

In accordance with the policy set out on page 75, the Company contributes 10% of salary for each of Roland Bonney and Malcolm Pye, and 7% of salary for Mark Plampin.

## LTIP awards

No awards under the Company's share plans were made to Executive Directors in the financial year ended 30 September 2016.

## Executive Directors' external appointments

None of the Executive Directors held non-executive directorships or external appointments with organisations other than the Company in the financial year ended 30 September 2016.

## Non-Executive Directors' fees for the financial year ended 30 September 2016

No changes were made to the Non-Executive Directors' fees in the financial year ended 30 September 2016. Kevin Quinn was appointed as a new Non-Executive Director on 25 November 2016.

## Statement of implementation of Remuneration Policy in 2017

### Executive directors' salaries

In the light of the substantial growth of the Company, a review of base salaries and the fact that the Executive Directors' salaries have been substantially below market over the last few years, the Remuneration Committee has taken a corrective step in 2017 and as described in the Chairman's statement will look to move the base salaries towards the median range over the next 2–3 years. Accordingly, from 1 January 2017, the Executive Directors' base pay was increased as set out below.

	Salary (£)		Increase in salary 2016 to 2017 (%)
	2017	2016	
Roland Bonney	265,000	180,000	47%
Mark Plampin	250,000	170,000	47%
Malcolm Pye	310,000	200,000	55%

### Bonus

The 2017 bonus will be implemented in line with the future policy described above.

### LTIP

The Company does not intend to make awards to the Executive Directors under its long-term share incentive plans in 2017.

### Additional information on Directors' interests

#### Directors' interests under the Company's employee share plans

Details of the Executive Directors' interests in outstanding share awards under the employee share plans during the financial year ended 30 September 2016 are set out below.

	Share option scheme	Options held at 30 September 2015	Options exercised in year	Options granted in year	At 30 September 2016	Exercise price	Grant date	Date from which exercisable
Mark Plampin	EMI scheme	135,000 (a)	-	-	135,000	0.1p	29 August 2013	29 August 2016
Mark Plampin	CSOP II	67,647	-	-	67,647	0.1p	9 March 2015	8 March 2018

(a) Prior to its IPO, the Company operated an Enterprise Management Incentive (EMI) share option scheme. At 30 September 2016, options over 1,202,000 ordinary shares remained outstanding under the EMI scheme, including options over 135,000 ordinary shares held by Mark Plampin as detailed above. No further grants may be made under the EMI scheme.

#### Directors' interests in ordinary shares

At 30 September 2016, the interests of the Directors and their connected persons in ordinary shares was as follows.

	Interests in ordinary shares at 30 September 2016	% of Company's issued share capital (d)	Interests in ordinary shares at 30 September 2015
Roland Bonney	15,145,686	2.91%	15,145,686
Basill Brookes	49,062 (b)	0.01%	39,062 (b)
Alex Hambro	46,875 (b)	0.01%	46,875 (b)
Malcolm Pye	15,145,686	2.91%	15,145,686
Mark Plampin	401,686 (c)	0.08%	401,686 (c)
Susan Searle	98,125 (b)	0.02%	98,125 (b)

(b) Held through self-invested personal pension (SIPP).

(c) Comprising 130,000 ordinary shares registered in own name, 267,000 ordinary shares held through self-invested personal pension (SIPP) and 4,686 ordinary shares held through the Benchmark employee share incentive plan.

(d) As at 30 September 2016.

Mark Plampin exercised his 135,000 EMI options following the year end. The total number of ordinary shares held by him at the date of this report is 536,686. There were no further changes in Directors' shareholdings between the 30th September 2016 and the date of this report.

Susan Searle  
Chairman of the Remuneration Committee  
24 January 2017



## SHAREHOLDERS

### Share capital and substantial shareholdings

Details of the Company's issued share capital, together with details of movements during the year, are shown in note 24 accompanying the financial statements. The Company has one class of ordinary share which carries no right to fixed income. Each ordinary share carries the right to one vote at general meetings of the Company.

As at 23 January 2017 the Company has been notified of the following substantial shareholdings under Rule 5 of the UKLA's Disclosure and Transparency Rules:

	% of issued share capital
Woodford Investment Management Limited	25.10
Invesco Limited	16.17
Lansdowne Partners International Limited	15.34
Lansdowne Partners Limited	
Lansdowne Partners (UK) LLP	
FERD AS	10.79
The Royal Bank of Scotland Group plc	6.84

### Engagement with shareholders

Engagement with shareholders is essential to ensure that Benchmark's strategy is understood and to receive feedback on this strategy, its implementation, performance and governance. It is crucial that shareholders have confidence in the Board's ability to oversee development and implementation of strategy.

If shareholders have concerns, they need to know to whom these should be addressed. The Chairman is primarily responsible for ensuring that the Board is accessible to major shareholders and that channels for communication are open. The Chairman is also responsible for ensuring that all of the Board members are aware of any feedback received from, or concerns raised by, major shareholders, and that these views are taken into account. The Senior Independent Director is available to shareholders if they have concerns which contact through the normal channels of Chairman, CEO or other Executive Directors has failed to resolve or for which such contact is inappropriate.

All members of the Board, including in particular the Chairman, Senior Independent Director, Chief Executive Officer and Chief Financial Officer, have regular dialogue with institutional shareholders.

During the year:

- A number of face-to-face meetings were held with institutional shareholders, including following release of the Annual Report and Accounts for 2015 and interim financial statements, and in connection with the July equity placing
- Directors attended the AGM, where they were available to answer questions and meet informally with shareholders
- A number of meetings were held between institutional shareholders and the Chairman or other Non-Executive Directors

## DIRECTORS' REPORT

The Directors present their Annual Report and audited financial statements of the Company and of the Group for the year ended 30 September 2016.

Benchmark Holdings plc is a public limited company, incorporated and domiciled in England and Wales. Its shares are admitted to trading on AIM, London Stock Exchange's international market for smaller growing companies.

The disclosure requirements of the Companies Act 2006, and where the Directors have deemed it appropriate, the UK Disclosure and Transparency Rules, have been met by the contents of this Directors' Report, along with the Strategic Report, Corporate Governance Report, Nomination Committee Report, Audit Report and Remuneration Report, which should be read in conjunction with this report.

### UK Corporate Governance Code

The Company complies with the principles of the Code. A copy of the Code is available from the website of the Financial Reporting Council ([www.frc.org.uk](http://www.frc.org.uk)). An overview of the Company's compliance with the principles of the Code is set out in the Directors' Report on pages 79 to 83 of this report. Benchmark complies with the main principles of the Code, as set out in the diagram page 80.

During the year, the Company did not comply with the following aspects of the Code:

- The Board did not conduct a formal evaluation of its performance in 2016, as a thorough and formal evaluation of the Board's performance had been conducted towards the end of 2015, led by the Nomination Committee. During 2016, the Board evaluated its composition and the balance and breadth of skills, experience and independence on the Board, taking into account recent acquisitions and the global growth of the Group. The Company intends to undertake a further evaluation of its performance in 2017
- The Nomination Committee evaluates the performance of the Board as a whole and in doing so evaluates the performance of each of the Directors, but a formal evaluation of the performance of individual Directors is not undertaken. The Company intends to undertake evaluation of individual Directors as part of the Board's performance review in 2017
- The Company is not subject to the Listing Rules and is not required to make a longer term viability statement
- The Audit Committee and Remuneration Committee each comprise two independent Non-Executive Directors (the Code recommends that three independent Directors should sit on each of these committees). The Company considers two independent Directors to be appropriate for the size of the Group and its Board

- The bonus element of the Executive Directors' remuneration is performance related. However, the Company believes that purely financial targets can lead to focus on delivery of short-term goals at the expense of long-term success and other opportunities, and therefore the key performance indicators used to determine performance based

remuneration involve an element of discretion, which is exercised critically by the Remuneration Committee. Share options may be granted as part of a deferred bonus, in lieu of part of a cash bonus, and are accordingly offered at a discount (See pages 74 to 78).

## Overview of compliance with principles of UK Corporate Governance Code

A. Leadership	
<b>A.1 Role of Board</b>	The Board takes collective responsibility for the long-term success of the Group, and oversees the development and delivery of strategy and conduct of the business. It does this by exercising oversight and control over the performance of the Company through review of management financial information, agreeing budgetary targets, and approving investment programmes and monitoring their execution against budget and returns on investment. (See page 65)
<b>A.2 Clear division of responsibilities</b>	There is a clear division of responsibilities between Chairman and Chief Executive Officer which is described on page 69 of this report.
<b>A.3 Role of Chairman</b>	The Chairman leads the Board, setting and managing the agenda, and promoting open and constructive discussion and challenge. (See page 69)
<b>A.4 Role of Non-Executive Directors</b>	The Board has a culture of transparency and open debate, and the Non-Executive Directors constructively challenge the Executive Directors regarding the strategy and its implementation. (See page 65)
B. Effectiveness	
<b>B.1 Composition of the Board</b>	The Board and the Nomination Committee assessed the composition of the Board during the year and are of the view that it contains an appropriate breadth and balance of skills, knowledge, experience and independence.
<b>B.2 Board appointments</b>	The Nomination Committee leads the process for the appointment of new Directors, and follow a formal and rigorous process, with the assistance of independent external recruiters, and taking into account the Group's policies regarding diversity.
<b>B.3 Time commitments</b>	Non-Executive Directors are notified of and agree to the required time commitments prior to appointment, and external directorships which may impact existing time commitments must be agreed with the Chairman.
<b>B.4 Training and development</b>	New Directors receive a comprehensive and formal induction programme which is tailored to their role and needs, and the Board receives updates regarding the business and regulatory developments. (See pages 66 to 67 and 69)
<b>B.5 Provision of information and support</b>	The Chairman, supported by the Company Secretary, ensures that Board members receive accurate and timely information and other support requested, including access to external legal advice.
<b>B.6 Board and Committee performance evaluations</b>	As, the Board conducted a formal evaluation of its own performance, size and composition in 2015, a formal evaluation of Board performance was not conducted in 2016. The Board intends to conduct a further review of its performance, and that of its committees, in 2017.
<b>B.7 Re-election of Directors</b>	The Articles of Association require Directors to retire by rotation at the third Annual General Meeting after the Annual General Meeting at which they were elected.
C. Accountability	
<b>C.1 Financial and business reporting</b>	The Audit Committee has reviewed the results for the year to 30 September 2016 to ensure they were fair, balanced and understandable. (See page 71)
<b>C.2 Risk management and internal control systems</b>	The Board is responsible for ensuring that the Company has in place effective procedures for the management of risk, and that the principal risks faced by the Group are identified, assessed, appropriately mitigated and monitored. Pages 56 to 59 of this report sets out the Company's risk framework and risk management activity.
<b>C.3 Role and responsibilities of the Audit Committee</b>	Responsibility for oversight of the Group's financial reporting procedures, internal controls and audit process is delegated to the Audit Committee, which also oversees the Group's risk management framework. (See pages 70 to 71)
D. Remuneration	
<b>D.1 Executive Directors' remuneration</b>	The policy for determining the remuneration of Executive Directors is set out in the Remuneration Report on pages 74 to 78. No Director is involved in setting his/her own remuneration.
<b>D.2 Remuneration policy</b>	The Company's remuneration policy is set out in the Remuneration Report on pages 74 to 78.
E. Relations with Shareholders	
<b>E.1 Shareholder engagement</b>	The Board engages actively and regularly with its shareholders. The Chairman and Senior Independent Director are available for discussions with major shareholders, and the Board is kept apprised of their views and feedback.
<b>E.2 Use of general meetings</b>	The Directors are always available at the AGM to meet with shareholders, who are invited to raise questions and also to meet with the Board following the formal business of the meeting.

## Annual General Meeting

The next Annual General Meeting will be held at 10.00am on 7 March 2017 at the offices of Travers Smith LLP at 10 Snow Hill, London, EC1A 2AL. Details of the AGM are set out in the Notice of AGM which is being posted to shareholders with this report.

The Directors will be available at the AGM to answer questions and to meet with shareholders following conclusion of the formal business of the meeting.

## Re-election of Directors

The re-appointment of Alex Hambro and Mark Plampin was approved at the Annual General Meeting held on 10 March 2016.

The Articles of Association require Directors to retire by rotation at the third Annual General Meeting after the Annual General Meeting at which they were elected. The Articles also provide that the Board has the power to appoint any person to be a Director, and that any Director appointed by the Board shall only hold office until the next following AGM. Kevin Quinn was appointed as a Director by the Board on 25 November 2016.

At the Annual General Meeting to be held on 7 March 2017, the following Directors are standing for re-election: Kevin Quinn, Susan Searle and Malcolm Pye.

## Power to allot shares

Each year at the Annual General Meeting, the Directors seek authority to allot shares for the following year. At the last AGM held on 10 March 2016, shareholders authorised the Directors to allot relevant securities up to an aggregate nominal value of £157,969, representing one third of the issued share capital, and to further allot equity securities up to an additional aggregate nominal value of £157,969 in connection with a fully pre-emptive rights issue, in accordance with ABI guidance. Directors were authorised to allot for cash equity securities having a nominal value not exceeding in aggregate £47,390 (being 10% of issued share capital). The authorities expire at the conclusion of the next AGM.

At the forthcoming AGM, authorities will be sought from shareholders similar to those sought at the 2016 AGM.

## Authority for the Company to purchase its own shares

At the Company's 2016 Annual General Meeting, shareholders renewed the Company's authorities to make market purchases of up to 47,390,733 ordinary shares, representing 10% of the Company's issued share capital. These authorities were not used during the year, or up to the date of this report. At the 2017 Annual General Meeting, shareholders will be asked to renew these authorities for another year, and the resolution will once again propose a maximum aggregate number of ordinary shares which the Company can purchase equal to 10% of the Company's issued ordinary share capital. Details are set out in the Notice of Annual General Meeting.

The Company held no treasury shares during the year, or at the date of this report.

## Length of notice of general meetings

The Companies Act 2006 requires listed companies to call general meetings on at least 21 clear days' notice unless shareholders have approved the calling of meetings on shorter notice. At the 2015 AGM, a resolution approving 14 days as the minimum period of notice for all general meetings of the Company other than AGMs was passed.

The 14 day notice period will only be used where the flexibility is merited by the business of the meeting, and is thought to be in the best interests of shareholders as a whole. The Company offers the facility for shareholders to vote by electronic means. This facility is open to all shareholders and would be available if the Company were to call a meeting on 14 clear days' notice.

## Employee involvement

Benchmark recognises that as the Group grows, additional systems are required to communicate information and strategy to all its people in an effective and timely way. The Group operates the following practices to ensure that all employees receive the information they require to optimise their personal performance and that of the Group, and to ensure effective functioning of internal control systems:

- Members of the Operations Board and of the Divisional Boards are responsible for the communication of strategy and relevant developments to their managers and teams, and formal and informal meetings are held at local level to ensure effective dissemination of such information
- Monthly newsletters are received by all employees, and include an update from the Executive Directors, together with information on business developments within the Group, new projects, investment programmes, and news regarding the aquaculture and animal health industries
- One-off newsletters are used to promptly communicate important events, such as the release of results acquisitions, significant business developments, and other events which are announced to shareholders
- The Group's intranet provides comprehensive information on each of the businesses within the Group, together with the Employee Handbook, policies, toolkits and other relevant information
- A programme of compliance training ensures that targeted training is provided to the workforce in relation to the Share Dealing Code, control of inside information, Matters Reserved for the Board, Anti-Bribery Policy, Whistleblowing Policy, employee share schemes and other matters
- One of the People Team's responsibilities is to act as a bridge between the business and its employees, ensuring effective communication and where appropriate acting as mediator

The Group has a policy of encouraging share ownership and over 72% of the Group's employees hold shares or options in the Company.

## Equal opportunity employer

The Group aims to be an equal opportunities employer and is committed to helping people to develop their potential. The Group is committed to giving disabled people and members of minority groups full and fair consideration for all vacancies for which they are suitably qualified. If any employees become disabled during employment, they will be retained wherever possible and retrained where appropriate.

## Directors' indemnities

All of the Directors benefited from qualifying third party indemnity provisions during the year and at the date of this report. The Company maintains appropriate D&O insurance cover in respect of legal action which may be taken against its Directors.

## Political and charitable donations

No political donations were made by any Group companies in the year.

The Company encourages employee involvement with charitable causes. Benchmark provides manpower and farm and office facilities to FarmAbility, a charity which works with adults with autism and learning difficulties by providing them with farming experience. Together, the Group's employees ran over 500 miles for charity during the year, raising many thousands of pounds for good causes.

## Dividend

The Group's loss for the year attributable to owners of the parent for 2016 was £18.3m (2015: Loss of £12.0m). The Directors do not recommend a final dividend in relation to the 2016 financial year (2015: Nil).

## Auditors

Following a tender process, the Company appointed KPMG LLP as auditor to replace BDO LLP in 2016.

Resolutions regarding the of appoint KPMG LLP as auditor to the Company will be put to shareholders at the Annual General Meeting to be held on 7 March 2017 (details on page 81).

## Disclosure of information to auditors

At the date of approval of this Directors' Report, each Director in office confirms that:

- He/she knows of no information, which would be relevant to the auditors for the purposes of their audit report, of which the auditors are not aware
- He/she has taken all steps that he/she ought to have taken in order to make himself/herself aware of any such information and to establish that the auditors are aware of it

This confirmation is given and should be interpreted in accordance with the provisions of s418 Companies Act 2006.

## Going concern

The Strategic Report reviews, in relation to the business as a whole:

- Business activities
- Financial position
- Factors likely to affect future development and performance
- Objectives and policies in managing the financial risks to which the business is exposed

The Directors have assessed, in light of current and anticipated economic conditions, the Group's ability to continue as a going concern, including its solvency and liquidity. The Directors confirm that they are satisfied that the Group and the Company have adequate resources to continue in business for the foreseeable future. For this reason, they continue to adopt the 'going concern' basis for preparing accounts.



## Information elsewhere in the report

The information set out below is contained in other areas of this report.

		Page(s) of this report
Financial instruments	Details of the Group's financial risk management objectives and policies including the Group's policy for hedging, and the exposure of the Company and its subsidiaries to price risk, credit risk, liquidity risk and cash flow risk.	102–105
Important events	Particulars of important events affecting the Company or its subsidiaries.	11–15, 19–37, 47–55
Post balance sheet events	Description of post balance sheet events.	None
Future developments	Likely future developments in the business of the Company or its subsidiaries.	11–18, 47–55
Research and development	Details of research and development activities of the Company and its subsidiaries.	20–26, 33
Branches outside the UK	Details of the existence of branches outside the UK.	8
Risk management	Details of the Company's risk management framework, activities in the year and <i>principal risks and uncertainties</i>	56–59
Directors' remuneration and interests	Details of Directors' remuneration, interests in shares of the Company, share options and pension arrangements.	74–79
Principal activities and business review	Business review, details of 2016 results, key performance indicators, outlook for future years.	11–15, 19–37, 47–55
Financial risk management	Objectives and policies for management of financial risk.	72–73
Share capital	Details of the issued share capital and movements during the year.	130

This report was approved by the Board on 23 January 2017 and signed on its behalf.

Athene Blakeman  
Company Secretary  
24 January 2017



## DIRECTORS' RESPONSIBILITIES

### Statement of Directors' responsibilities in relation to the Group financial statements and Annual Report

The Directors are responsible for preparing the Strategic Report, the Directors' Report and the financial statements in accordance with applicable law and regulation.

Company law requires the Directors to prepare financial statements for each financial year. Under that law, the Directors have elected to prepare the Group and Company financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union. Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company, and of the profit or loss of the Group and Company for that period. The Directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies whose securities are traded on the Alternative Investment Market.

In preparing these financial statements, the Directors are required to:

- Select suitable accounting policies and apply them consistently
- Make judgements and accounting estimates that are reasonable and prudent
- State whether the financial statements have been prepared in accordance with IFRS as adopted by the European Union, subject to any material departures disclosed and explained in the financial statements
- Prepare the financial statements on a going concern basis unless it is inappropriate to assume that the Company will continue its business

# **03**

## **Financial Statements**

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- 93** Consolidated Statement of Cash Flows
- 94** Company Statement of Cash Flows
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## Independent Auditor's report to the members of Benchmark Holdings plc for the year ended 30 September 2016

We have audited the financial statements of Benchmark Holdings plc for the year ended 30 September 2016 which comprise the Consolidated Income Statement, the Consolidated and Company Balance Sheets, the Consolidated Statement of Comprehensive Income, the Consolidated and Company Statement of Changes in Equity, the Consolidated and Company Statement of Cash Flows and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the EU and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

### Respective responsibilities of directors and auditors

As explained more fully in the statement of directors' responsibilities, set out on page 83, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

### Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at [www.frc.org.uk/auditscopeukprivate](http://www.frc.org.uk/auditscopeukprivate).

### Opinion on financial statements

In our opinion:

- the financial statements give a true and fair view of the state of the group's and the parent company's affairs as at 30 September 2016 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with IFRSs as adopted by the EU;
- the parent company financial statements have been properly prepared in accordance with IFRSs as adopted by the EU and as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

### Opinion on other matters prescribed by the Companies Act 2006

In our opinion the information given in the strategic report and directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

### Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

  
Ian Beaumont  
for and on behalf of KPMG LLP

Chartered Accountants  
1 Sovereign Square, Sovereign Street, Leeds, LS1 4DA  
24 January 2017

# Consolidated Income Statement

for the year ended 30 September 2016

	Note	Trading Activities' 2016 £000	Investing Activities' 2016 £000	Total 2016 £000	Trading Activities' 2015 £000	Investing Activities' 2015 £000	Total 2015 £000
Revenue	4	109,375	-	109,375	44,199	-	44,199
Cost of sales		(58,562)	-	(58,562)	(28,102)	-	(28,102)
Gross profit		50,813	-	50,813	16,097	-	16,097
Operating costs	26	(28,502)	(26,028)	(54,530)	(13,674)	(9,494)	(23,168)
Operating costs — Exceptional	10	-	(146)	(146)	-	(160)	(160)
EBITDA <sup>3</sup>		22,311	(26,174)	(3,863)	2,423	(9,654)	(7,231)
Depreciation	13	(2,609)	(250)	(2,859)	(1,113)	(191)	(1,304)
Amortisation	14	(13,504)	(245)	(13,749)	(2,825)	(239)	(3,064)
Operating profit/(loss)		6,198	(26,669)	(20,471)	(1,515)	(10,084)	(11,599)
Finance costs	9	(6,170)	-	(6,170)	(34)	-	(34)
Finance income	9	3,984	-	3,984	260	14	274
Share of profit of equity-accounted investees, net of tax		273	-	273	-	-	-
Profit/(loss) on ordinary activities before taxation		4,285	(26,669)	(22,384)	(1,289)	(10,070)	(11,359)
Tax on profit/(loss) on ordinary activities	11,26	3,187	851	4,038	(751)	355	(396)
Profit/(loss) for the year		7,472	(25,818)	(18,346)	(2,040)	(9,715)	(11,755)
Profit/(loss) for the year attributable to:							
— Owners of the parent		7,481	(25,818)	(18,337)	(2,273)	(9,715)	(11,988)
— Non-controlling interest		(9)	-	(9)	233	-	233
		7,472	(25,818)	(18,346)	(2,040)	(9,715)	(11,755)
Basic earnings/(loss) per share (pence)	12	1.79		(4.39)	(1.13)		(5.96)
Diluted earnings/(loss) per share (pence)	12	1.78		(4.39)	(1.13)		(5.96)

1 Before items described in footnote 2 below.

2 Includes exceptional items (outlined in note 10), research and development expenditure, pre-operational expenses for new ventures and costs of acquiring new businesses as set out in note 26.

3 EBITDA — Earnings before interest, tax, depreciation and amortisation

## Consolidated Statement of Comprehensive Income

for the year ended 30 September 2016

	Trading Activities' 2016 £000	Investing Activities' 2016 £000	Total 2016 £000	Trading Activities' 2015 £000	Investing Activities' 2015 £000	Total 2015 £000
Profit/(loss) for the year	7,472	(25,818)	(18,346)	(2,040)	(9,715)	(11,755)
Other comprehensive income/(expense)						
Items that are or may be reclassified subsequently to profit or loss						
Movement on foreign exchange reserve	48,386		48,386	(2,812)	-	(2,812)
Total comprehensive income/(expense) for the year	55,858	(25,818)	30,040	(4,852)	(9,715)	(14,567)
Total comprehensive income/(expense) for the year attributable to:						
— Owners of the parent	55,571	(25,818)	29,753	(5,071)	(9,715)	(14,786)
— Non-controlling interest	287	-	287	219	-	219
	55,858	(25,818)	30,040	(4,852)	(9,715)	(14,567)

1 Before items described in footnote 2 below.

2 Includes exceptional items (outlined in note 10), research and development expenditure, pre-operational expenses for new ventures and costs of acquiring new businesses as set out in note 26.

## Consolidated Balance Sheet

as at 30 September 2016

	Notes	2016 £000	2015 £000
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	13	50,023	25,141
Intangible assets	14	352,538	65,872
Investments, including associates		827	147
Trade and other receivables	19	-	293
Biological and agricultural assets	18	5,028	3,392
<b>Total non-current assets</b>		<b>408,416</b>	<b>94,845</b>
<b>Current assets</b>			
Inventories	17	23,231	5,359
Biological and agricultural assets	18	6,831	4,948
Trade and other receivables	19	34,288	15,353
Cash and cash equivalents	34	38,140	13,564
<b>Total current assets</b>		<b>102,490</b>	<b>39,224</b>
<b>Total assets</b>		<b>510,906</b>	<b>134,069</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Trade and other payables	20	(31,232)	(24,368)
Loans and borrowings	21	(289)	(63)
Corporation tax liability		(1,107)	(860)
Provisions	22	(1,086)	(1,033)
<b>Total current liabilities</b>		<b>(33,714)</b>	<b>(26,324)</b>
<b>Non-current liabilities</b>			
Loans and borrowings	21	(37,407)	(93)
Other payables	20	(8,825)	(7,330)
Deferred tax	23	(63,261)	(8,224)
<b>Total non-current liabilities</b>		<b>(109,493)</b>	<b>(15,647)</b>
<b>Total liabilities</b>		<b>(143,207)</b>	<b>(41,971)</b>
<b>Net assets</b>		<b>367,699</b>	<b>92,098</b>
<b>Issued capital and reserves attributable to owners of the parent</b>			
Share capital	24	521	219
Share premium reserve	24	339,431	94,672
Capital redemption reserve	25	5	5
Retained earnings	25	(18,904)	(1,021)
Foreign exchange reserve	25	45,365	(2,724)
<b>Equity attributable to owners of the parent</b>		<b>366,418</b>	<b>91,151</b>
Non-controlling interest		1,281	947
<b>Total equity and reserves</b>		<b>367,699</b>	<b>92,098</b>

The financial statements on pages 87 to 139 were approved and authorised for issue by the Board of Directors on 24 January 2017 and were signed on its behalf by:

M J Plampin  
Chief Financial Officer



# Company Balance Sheet

as at 30 September 2016

	Note	2016 £000	2015 £000
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	13	240	154
Investments, including associates	16	261,902	29,502
Deferred tax assets	23	-	170
<b>Total non-current assets</b>		<b>262,142</b>	<b>29,826</b>
<b>Current assets</b>			
Trade and other receivables	19	101,489	70,280
Cash and cash equivalents	34	27,480	5,542
<b>Total current assets</b>		<b>128,969</b>	<b>75,822</b>
<b>Total assets</b>		<b>391,111</b>	<b>105,648</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Trade and other payables	20	(26,102)	(8,542)
<b>Total current liabilities</b>		<b>(26,102)</b>	<b>(8,542)</b>
<b>Non-current liabilities</b>			
Loans and borrowings	21	(37,193)	(60)
Other payables	20	-	(351)
<b>Total non-current liabilities</b>		<b>(37,193)</b>	<b>(411)</b>
<b>Total liabilities</b>		<b>(63,295)</b>	<b>(8,953)</b>
<b>Net assets</b>		<b>327,816</b>	<b>96,695</b>
<b>Issued capital and reserves attributable to owners of the parent</b>			
Share capital	24	521	219
Share premium reserve	24	339,431	94,672
Capital redemption reserve	25	5	5
Retained earnings	25	(12,141)	1,799
<b>Total equity and reserves</b>		<b>327,816</b>	<b>96,695</b>

The financial statements on pages 87 to 139 were approved and authorised for issue by the Board of Directors on 24 January 2017 and were signed on its behalf by:

MJ Plampin  
Chief Financial Officer





## Consolidated Statement of Changes in Equity

for the year ended 30 September 2016

	Share capital £000	Share premium reserve £000	Other reserves £000	Retained earnings £000	Total attributable to equity holders of parent £000	Non- controlling interest £000	Total equity £000
<b>As at 1 October 2014</b>	137	26,903	79	10,123	37,242	10	37,252
<b>Comprehensive Income for the year</b>							
(Loss)/profit for the year	-	-	-	(11,988)	(11,988)	233	(11,755)
Other comprehensive income	-	-	(2,798)	-	(2,798)	(14)	(2,812)
<b>Total comprehensive income for the year</b>	-	-	(2,798)	(11,988)	(14,786)	219	(14,567)
<b>Contributions by and distributions to owners</b>							
Share issue	82	69,918	-	-	70,000	-	70,000
Share issue costs recognised through equity	-	(2,149)	-	-	(2,149)	-	(2,149)
Share based payment	-	-	-	748	748	-	748
Deferred tax on share options	-	-	-	96	96	-	96
Acquisition of non-controlling interest	-	-	-	-	-	718	718
<b>Total contributions by and distributions to owners</b>	82	67,769	-	844	68,695	718	69,413
<b>As at 30 September 2015</b>	219	94,672	(2,719)	(1,021)	91,151	947	92,098

<b>Comprehensive Income for the year</b>							
Loss for the year	-	-	-	(18,337)	(18,337)	(9)	(18,346)
Other comprehensive income	-	-	48,089	-	48,089	297	48,386
<b>Total comprehensive income for the year</b>	-	-	48,089	(18,337)	29,752	288	30,040
<b>Contributions by and distributions to owners</b>							
Share issue	302	249,444	-	-	249,746	-	249,746
Share issue costs recognised through equity	-	(4,685)	-	-	(4,685)	-	(4,685)
Share based payment	-	-	-	749	749	-	749
Deferred tax on share options	-	-	-	(295)	(295)	-	(295)
<b>Total contributions by and distributions to owners</b>	302	244,759	-	454	245,515	-	245,515
<b>Changes in ownership</b>							
Acquisition of subsidiary with non-controlling interests	-	-	-	-	-	46	46
<b>Total changes in ownership interests</b>	-	-	-	-	-	46	46
<b>Total transactions with owners of the Company</b>	302	244,759	-	454	245,515	46	245,561
<b>As at 30 September 2016</b>	521	339,431	45,370	(18,904)	366,418	1,281	367,699

## Company Statement of Changes in Equity

for the year ended 30 September 2016

	Share capital £000	Share premium reserve £000	Capital redemption reserve £000	Retained earnings £000	Total attributable to equity holders £000
<b>At 1 October 2014</b>	<b>137</b>	<b>26,903</b>	<b>5</b>	<b>8,854</b>	<b>35,899</b>
<b>Comprehensive income for the year</b>					
Loss for the year	-	-	-	(7,807)	(7,807)
<b>Total comprehensive income for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(7,807)</b>	<b>(7,807)</b>
<b>Contributions by and distributions to owners</b>					
Share based payment	-	-	-	748	748
Deferred tax on share options	-	-	-	4	4
Share issue	82	69,918	-	-	70,000
Share issue costs recognised through equity	-	(2,149)	-	-	(2,149)
<b>Total contributions by and distributions to owners</b>	<b>82</b>	<b>67,769</b>	<b>-</b>	<b>752</b>	<b>68,603</b>
<b>At 30 September 2015</b>	<b>219</b>	<b>94,672</b>	<b>5</b>	<b>1,799</b>	<b>96,695</b>

<b>Comprehensive income for the year</b>					
Loss for the year	-	-	-	(14,646)	(14,646)
<b>Total comprehensive income for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(14,646)</b>	<b>(14,646)</b>
<b>Contributions by and distributions to owners</b>					
Share based payment	-	-	-	749	749
Deferred tax on share options	-	-	-	(43)	(43)
Share issue	302	249,444	-	-	249,746
Share issue costs recognised through equity	-	(4,685)	-	-	(4,685)
<b>Total contributions by and distributions to owners</b>	<b>302</b>	<b>244,759</b>	<b>-</b>	<b>706</b>	<b>245,767</b>
<b>At 30 September 2016</b>	<b>521</b>	<b>339,431</b>	<b>5</b>	<b>(12,141)</b>	<b>327,816</b>

## Consolidated Statement of Cash Flows

for the year ended 30 September 2016

	Notes	2016 £000	2015 £000
<b>Cash flows from operating activities</b>			
Loss for the year		(18,346)	(11,755)
Adjustments for:			
Depreciation of property, plant and equipment	13	2,859	1,304
Amortisation of intangible fixed assets	14	13,749	3,064
Loss on sale of property, plant and equipment		30	21
Finance income	9	(3,984)	(274)
Finance costs	9	6,170	34
Share of profit of equity-accounted investees, net of tax		(273)	-
Foreign exchange losses/(gains)		6,776	(1,445)
Share based payment expense	30	749	458
Tax (credit)/expense	11	(4,038)	396
		3,692	(8,197)
(Increase)/decrease in trade and other receivables		(3,729)	2,503
Increase in inventories and biological assets		(4,704)	(468)
Decrease in trade and other payables		(4,124)	(2,645)
Decrease in provisions		(238)	(47)
		(9,103)	(8,854)
Income taxes paid		(1,429)	(105)
<b>Net cash flows used in operating activities</b>		<b>(10,532)</b>	<b>(8,959)</b>
<b>Investing activities</b>			
Acquisition of subsidiaries, net of cash acquired		(191,502)	(47,568)
Purchase of investments		-	(52)
Purchases of property, plant and equipment		(18,660)	(14,038)
Purchase of intangibles		(1,523)	(182)
Proceeds from sale of fixed assets		174	148
Interest received		254	274
<b>Net cash flows used in investing activities</b>		<b>(211,257)</b>	<b>(61,418)</b>
<b>Financing activities</b>			
Proceeds of share issues		216,519	70,000
Proceeds from bank borrowings		42,254	-
Share-issue costs recognised through equity		(4,685)	(2,149)
Net cash flows from derivative financial instruments		3,731	-
Repayment of bank borrowings		(8,809)	(332)
Interest and finance charges paid		(2,481)	(34)
Payments to finance lease creditors		(164)	(55)
<b>Net cash inflow from financing activities</b>		<b>246,365</b>	<b>67,430</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>24,576</b>	<b>(2,947)</b>
Cash and cash equivalents at beginning of year		13,564	16,511
Cash and cash equivalents at end of year	34	38,140	13,564

## Company Statement of Cash Flows

for the year ended 30 September 2016

	Note	2016 £000	2015 £000
<b>Cash flows from operating activities</b>			
Loss for the year		(14,646)	(7,807)
<i>Adjustments for:</i>			
Depreciation of property, plant and equipment	13	62	22
Provision for impairment of investments	16	-	850
Loss on sale of property, plant and equipment		-	5
Finance income		(4,018)	(117)
Finance expense		6,219	-
Share based payment expense	30	149	128
Tax expense/credit		127	(119)
		(12,107)	(7,038)
Increase in trade and other receivables		(34,001)	(42,680)
Increase in trade and other payables		17,207	1,998
<b>Net cash flows used in operating activities</b>		<b>(28,901)</b>	<b>(47,720)</b>
<b>Investing activities</b>			
Loans to subsidiary undertakings		-	(8,902)
Repayment of loan from subsidiary undertaking		1,659	-
Investment in subsidiary undertakings		(197,440)	(19,767)
Purchases of property, plant and equipment		(148)	(115)
Interest received		288	117
<b>Net cash flows used in investing activities</b>		<b>(195,641)</b>	<b>(28,667)</b>
<b>Financing activities</b>			
Proceeds of share issues		216,519	70,000
Proceeds from bank borrowings		42,254	-
Share issue costs recognised through equity		(4,685)	(2,149)
Net cash flows from derivative financial instruments		3,731	-
Repayment of bank borrowings		(8,809)	-
Interest paid		(2,530)	-
<b>Net cash inflow from financing activities</b>		<b>246,480</b>	<b>67,851</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>21,938</b>	<b>(8,536)</b>
Cash and cash equivalents at beginning of year		5,542	14,078
<b>Cash and cash equivalents at end of year</b>	34	<b>27,480</b>	<b>5,542</b>

## Notes forming part of the financial statements

for the year ended 30 September 2016

### 1 Accounting policies

#### Corporate information

Benchmark Holdings plc (the Company) is a public limited company, which is listed on the Alternative Investment Market (AIM), a sub-market of the London Stock Exchange. The Company is incorporated and domiciled in England and Wales. The registered office is at Benchmark House, 8 Smithy Wood Drive, Sheffield, S35 1QN.

The Group is principally engaged in the provision of technical services, products and specialist knowledge that support the global development of sustainable food and farming industries.

#### Basis of preparation

The principal accounting policies adopted in the preparation of the financial statements are set out below. The policies have been consistently applied to all the years presented, unless otherwise stated. The Group's business activities, together with the factors likely to affect its future development, performance and position are set out in the Chairman's Statement, the FY16 Financial Review and the Audit Committee Report. As at 30 September 2016 the Group had net assets of £367.7 million, including cash of £38.1 million (2015: £13.6 million) as set out in the consolidated balance sheet on page 89 and a five year revolving credit facility of US\$70.0 million, of which US\$50 million is currently drawn down and which expires in 2020.

The Directors have considered these factors, together with the results for the year and the likely future performance of the business and possible alternative outcomes and the financing activities available to the Group. Having taken all of these factors into consideration, including the impact on covenants relating to the external borrowing facility, the Directors confirm that forecasts and projections indicate that the Group and its Parent Company have adequate resources for the foreseeable future and at least for the period of 12 months from the date of signing the half year report. Accordingly, the financial information has been prepared on the going concern basis.

These financial statements have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and Interpretations (collectively IFRSs) issued by the International Accounting Standards Board (IASB) as adopted by the European Union ("adopted IFRSs") and those parts of the Companies Act 2006 that are applicable to companies that prepare financial statements in accordance with IFRS.

The preparation of financial statements in compliance with adopted IFRS requires the use of certain critical accounting estimates. It also requires Group management to exercise judgement in applying the Group's accounting policies. The areas where significant judgements and estimates have been made in preparing

the financial statements and their effect are disclosed in note 2.

#### Basis of consolidation

The consolidated financial statements comprise the financial statements of the Group and its subsidiaries at 30 September 2016. Subsidiaries are consolidated from the date of acquisition, being the date on which the Group obtained control, and continue to be consolidated until the date when such control ceases.

Where the Company has power, either directly or indirectly, over another entity or business and the ability to use this power to affect the amount of returns, as well as exposure or rights to variable returns from its involvement with the investee, it is classified as a subsidiary. The consolidated financial statements present the results of the Company and its subsidiaries ("the Group") as if they formed a single entity. Intercompany transactions, balances, unrealised gains and losses resulting from intra-Group transactions and dividends are eliminated in full.

The consolidated financial statements incorporate the results of business combinations using the acquisition method. In the consolidated balance sheet, the acquiree's identifiable assets, liabilities and contingent liabilities are initially recognised at their fair values at the acquisition date.

Non-controlling interests, presented as part of equity, represent a proportion of a subsidiary's profit or loss and net assets that is not held by the Group. The total comprehensive income or loss of non-wholly owned subsidiaries is attributed to owners of the parent and to the non-controlling interests in proportion to their respective ownership interests.

A separate income statement for the Company is not presented, in accordance with Section 408 of the Companies Act 2006. The loss for the year for the Company was £14,646,000 (2015: loss £7,807,000).

#### Standards issued but not effective

A number of new standards, amendments to standards and interpretations are not yet effective, and have not been applied in preparing these consolidated financial statements. Those which may be relevant to the Group are set out below. The adoption of these standards is not expected to have a material effect on the financial statements unless otherwise indicated:

**IFRS 9 Financial Instruments: Classification and Measurement** has been issued but is not yet effective. The standard has been developed in several phases and replaces IAS 39 Financial Instruments: Recognition and Measurement in its entirety. The effective date of the fully completed version of IFRS 9 is for periods beginning on or after 1 January 2018 with retrospective application. The Group has not yet quantified the full impact of all phases of the final standard. It is expected that the Group will adopt IFRS 9 on 1 October 2018.

## 1 Accounting policies (continued)

**IFRS 15 Revenue from Contracts with Customers**, which has been issued but has an effective date of 1 January 2018. IFRS 15 supersedes IAS 11 Construction Contracts, IAS 18 Revenue, IFRIC 13 Customer Loyalty Programmes, IFRIC 15 Agreements for the Construction of Real Estate, IFRIC 18 Transfers of Assets from Customers and SIC 31 Revenue — Barter Transactions Involving Advertising Services. The Group has not yet quantified the potential impact of this standard. It is expected the Group will adopt IFRS 15 on 1 October 2018.

**IFRS 16 Leases** introduces a single, on-balance sheet accounting model for lessees which has an effective date of 1 January 2019. The Group has not yet quantified the potential impact of this standard. It is expected that the Group will adopt IFRS 16 on 1 October 2019.

### **New standards and interpretations applied for the first time**

The following standards with an effective date of either 1 January 2015 or 1 February 2015 have been adopted without any significant impact on the amounts reported in these financial statements:

#### **Annual Improvements to IFRSs 2010–2012 Cycle — various standards**

#### **Annual Improvements to IFRSs 2011–2013 Cycle — various standards**

### **Revenue**

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured, regardless of when the payment is being made. Revenue is measured at the fair value of consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty. The Group assesses its revenue arrangements against specific criteria in order to determine if it is acting as a principal or agent. The Group has concluded that it is acting as a principal in all of its revenue arrangements. The following specific criteria must also be met before revenue is recognised:

#### *Sale of goods*

Within Benchmark Animal Health, revenue from the sale of licenced veterinary vaccines and vaccine components is recognised when the Group has transferred the significant risks and rewards of ownership to the buyer, usually on despatch. Where the buyer has a right of return, revenue and cost of sales are adjusted for the value of the expected returns based on historical results, taking into consideration the specifics of each arrangement.

Within Benchmark Sustainability Science, revenue from the sale of agricultural produce is recognised when the Group has transferred the significant risks and rewards of ownership to the buyer, usually on delivery. Where the buyer has a right of return, revenue and cost of sales are adjusted for the value of the expected returns based on

historical results, taking into consideration the specifics of each arrangement.

Within Benchmark Technical Publishing, revenue from the sales of books and publications is recognised when the Group has transferred the significant risks and rewards of ownership to the buyer, usually on despatch.

Within Benchmark Breeding and Genetics, revenue from the sale of eggs is recognised upon despatch, which is when the risks and rewards of ownership are considered to have passed to the customer.

Within Benchmark Advanced Animal Nutrition, revenue of advanced nutrition and health products is recognised when the Group has transferred the significant risks and rewards of ownership to the buyer, usually on despatch.

#### *Rendering of services*

Services including sustainable food production consultancy, technical consultancy and assurance services are provided by Benchmark Sustainability Science, Benchmark Animal Health, Benchmark Breeding and Genetics and Benchmark Advanced Animal Nutrition. Online news, marketing and technical publications, book publishing, online shops, online distance learning programs and other training courses are provided by Benchmark Technical Publishing.

Provided the amount of revenue can be measured reliably and it is probable that the Group will receive any consideration, revenue for these services is recognised in the period in which they are rendered.

### **Business combinations**

Business combinations are accounted for using the acquisition method. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Group recognises any non-controlling interest in the acquiree on an acquisition by acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's identifiable net assets.

Transaction costs, other than share and debt issue costs, are expensed as incurred. In accordance with IFRS 3 — Business Combinations, the Group has a twelve-month period in which to finalise the fair values allocated to assets and liabilities determined provisionally on acquisition.

Contingent consideration is measured at fair value based on an estimate of the expected future payments. Deferred consideration is measured at the present value of the obligation.

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in the consolidated income statement.

## 1 Accounting policies (continued)

### Foreign currency

The Group's consolidated financial statements are presented in UK pounds sterling, which is also the parent Company's functional currency. The Group determines the functional currency of each of its subsidiaries and items included in the financial statements of each of those entities are measured using that functional currency.

Transactions entered into by Group entities in a currency other than the currency of the primary economic environment in which they operate (their "functional currency") are recorded at the rates ruling when the transactions occur. Foreign currency monetary assets and liabilities are translated at the rates ruling at the reporting date. Exchange differences arising on the retranslation of unsettled monetary assets and liabilities are recognised immediately in the consolidated income statement.

On consolidation, the results of overseas operations are translated into sterling at rates approximating to those ruling when the transactions took place. All assets and liabilities of overseas operations, including goodwill arising on the acquisition of those operations, are translated at the rate ruling at the reporting date. Exchange differences arising on translating the opening net assets at opening rate and the results of overseas operations at actual rate are recognised in other comprehensive income and accumulated in the foreign exchange reserve.

Exchange differences recognised in the income statement in the Group entities' separate financial statements on the translation of long-term monetary items forming part of the Group's net investment in the overseas operation concerned are reclassified to other comprehensive income and accumulated in the foreign exchange reserve on consolidation.

On disposal of a foreign operation, the cumulative exchange differences recognised in the foreign exchange reserve relating to that operation up to the date of disposal are transferred to the consolidated income statement as part of the profit or loss on disposal.

### Financial assets

The Group classifies all of its financial assets as loans and receivables and has not classified any of its financial assets as held to maturity.

Loans and receivable assets are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise principally through the provision of goods and services to customers (e.g. trade receivables), but also incorporate other types of contractual monetary asset. They are initially recognised at fair value plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

Impairment provisions are recognised when there is objective evidence (such as significant financial difficulties on the part of the counterparty or default or significant delay in payment) that the Group will be unable to collect all of the amounts due under the terms of the receivable, the amount of such a provision being the difference between the net carrying amount and the present value of the future expected cash flows associated with the impaired receivable. For trade receivables, which are reported net, such provisions are recorded in a separate allowance account with the loss being recognised within operating costs in the consolidated income statement. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

From time to time, the Group elects to renegotiate the terms of trade receivables due from customers with which it has previously had a good trading history. Such renegotiations will lead to changes in the timing of payments rather than changes to the amounts owed and, in consequence, the new expected cash flows are discounted at the original effective interest rate and any resulting difference to the carrying value is recognised in the consolidated income statement (operating profit).

The Group's loans and receivables comprise trade and other receivables and cash and cash equivalents in the consolidated balance sheet.

Cash and cash equivalents includes cash in hand, deposits held at call with banks, other short term highly liquid investments with original maturities of three months or less from inception, and for the purpose of the statements of cash flows, bank overdrafts. Bank overdrafts are shown within loans and borrowings in current liabilities on the consolidated balance sheet.

### Financial liabilities

The Group classifies its financial liabilities as other financial liabilities which include the following items:

- Bank borrowings which are initially recognised at fair value net of any transaction costs directly attributable to the issue of the instrument. Such interest bearing liabilities are subsequently measured at amortised cost using the effective interest rate method, which ensures that any interest expense over the period to repayment is at a constant rate on the balance of the liability carried in the consolidated balance sheet.
- Trade payables and other short-term monetary liabilities, which are initially recognised at fair value and subsequently carried at amortised cost using the effective interest method.

### Financial liabilities fair value through profit and loss

Contingent consideration is recognised at fair value with movements recognised in the consolidated income statement.

### Share capital

The Group's ordinary shares are classified as equity instruments.

## 1 Accounting policies (continued)

### Retirement benefits: Defined contribution schemes

Contributions to defined contribution pension schemes are charged to the income statement in the year to which they relate.

### Share-based payments

Where equity settled share options are awarded to employees, the fair value of the options at the date of grant is charged to the consolidated income statement over the vesting period. Non-market vesting conditions are taken into account by adjusting the number of equity instruments expected to vest at each reporting date so that, ultimately, the cumulative amount recognised over the vesting period is based on the number of options that eventually vest. Non-vesting conditions and market vesting conditions are factored into the fair value of the options granted. As long as all other vesting conditions are satisfied, a charge is made irrespective of whether the market vesting conditions are satisfied. The cumulative expense is not adjusted for failure to achieve a market vesting condition or where a non-vesting condition is not satisfied.

Where the terms and conditions of options are modified before they vest, the increase in the fair value of the options, measured immediately before and after the modification, is also charged to the consolidated income statement over the remaining vesting period.

### Leased assets

Where substantially all of the risks and rewards incidental to ownership of a leased asset have been transferred to the Group (a "finance lease"), the asset is treated as if it had been purchased outright. The amount initially recognised as an asset is the lower of the fair value of the leased property and the present value of the minimum lease payments payable over the term of the lease. The corresponding lease commitment is shown as a liability. Lease payments are analysed between capital and interest. The interest element is charged to the consolidated income statement over the period of the lease and is calculated so that it represents a constant proportion of the lease liability. The capital element reduces the balance owed to the lessor.

Where substantially all of the risks and rewards incidental to ownership are not transferred to the Group (an "operating lease"), the total rentals payable under the lease are charged to the consolidated income statement on a straight-line basis over the lease term. The aggregate benefit of lease incentives is recognised as a reduction of the rental expense over the lease term on a straight-line basis.

### Goodwill

Goodwill is initially measured at cost, being the excess of the cost of a business combination over the total acquisition date fair value of the identifiable assets, liabilities and contingent liabilities acquired. Goodwill is capitalised as an intangible asset with any impairment in carrying value being charged to the consolidated income statement. Where the fair value of identifiable assets,

liabilities and contingent liabilities exceed the fair value of consideration paid, the excess is credited in full to the consolidated income statement on the acquisition date.

### Externally acquired intangible assets

Externally acquired intangible assets are initially recognised at cost and subsequently amortised over their useful economic lives as outlined below, on a straight-line basis from the time they are available for use.

Intangible assets are recognised on business combinations if they are separable from the acquired entity or give rise to other contractual/legal rights. The amounts ascribed to such intangibles are arrived at by using appropriate valuation techniques (see section related to critical estimates and judgements below).

In-process research and development programmes acquired in such combinations are recognised as an asset, even if subsequent expenditure is written off because it does not meet the criteria specified in the policy for development costs below.

The significant intangibles recognised by the Group, their useful economic lives and the methods used to determine the cost of intangibles acquired in a business combination are as follows:

Intangible asset	Useful economic life	Valuation method
Websites	5 years	Assessment of estimated revenues and profits
Patents	2-5 years	Cost to acquire
Trademarks	2-5 years	Cost to acquire
Contracts	3-20 years	Assessment of estimated revenues and profits
Licences	3-20 years	Cost to acquire, or if not separately identifiable, assessment of estimated revenues and profits
Intellectual property	Up to 20 years	Cost to acquire, or if not separately identifiable, assessment of estimated revenues and profits
Customer lists	Up to 26 years	Assessment of estimated revenues and profits
Genetic material and breeding nuclei	10-40 years	Cost to acquire, or if not separately identifiable, assessment of estimated revenues and profits
Development costs	Up to 10 years	Cost to acquire



## 1 Accounting policies (continued)

### Impairment of non-financial assets (excluding inventories)

The carrying values of all non-current assets are reviewed for impairment, either on a stand-alone basis or as part of a larger cash generating unit, when there is an indication that the assets might be impaired. Additionally, goodwill, intangible assets with indefinite useful lives and intangible assets which are not yet available for use are tested for impairment annually. Where the carrying value of an asset exceeds its recoverable amount (i.e. the higher of value in use and fair value less costs to sell), the asset is written down accordingly.

Where it is not possible to estimate the recoverable amount of an individual asset, the impairment test is carried out on the smallest group of assets to which it belongs for which there are separately identifiable cash flows; its cash generating units ('CGUs'). Goodwill is allocated on initial recognition to each of the Group's CGUs that are expected to benefit from the synergies of the combination giving rise to the goodwill.

Impairment charges are included in the consolidated income statement, except to the extent they reverse gains previously recognised in other comprehensive income. An impairment loss recognised for goodwill is not reversed.

### Internally generated intangible assets (development costs)

Expenditure on internally developed products is capitalised if it can be demonstrated that:

- it is technically feasible to develop the product for it to be sold;
- adequate resources are available to complete the development;
- there is an intention to complete and sell the product;
- the Group is able to sell the product;
- sale of the product will generate future economic benefits; and
- expenditure on the project can be measured reliably.

Capitalised development costs are amortised over the periods the Group expects to benefit from selling the products developed. The amortisation expense is included within the cost of sales line in the consolidated income statement.

Development expenditure not satisfying the above criteria and expenditure on the research phase of internal projects are recognised in the consolidated income statement as incurred.

### Deferred taxation

Deferred tax assets and liabilities are recognised where the carrying amount of an asset or liability in the balance sheet differs from its tax base, except for differences arising on:

- the initial recognition of goodwill;

- the initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction affects neither accounting or taxable profit; and
- investments in subsidiaries and jointly controlled entities where the Group is able to control the timing of the reversal of the difference and it is probable that the difference will not reverse in the foreseeable future.

Recognition of deferred tax assets is restricted to those instances where it is probable that taxable profit will be available against which the difference can be utilised. The carrying amount of deferred tax asset is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

The amount of the asset or liability is determined using tax rates that have been enacted or substantively enacted by the reporting date and are expected to apply when the deferred tax liabilities/assets are settled/recovered.

Deferred tax assets and liabilities are offset when the Group has a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to taxes levied by the same tax authority on either:

- the same taxable Group company; or
- different Group entities which intend either to settle current tax assets and liabilities on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax assets or liabilities are expected to be settled or recovered.

### Property, plant and equipment

Items of property, plant and equipment are initially recognised at cost. As well as the purchase price, cost includes directly attributable costs and the estimated present value of any future unavoidable costs of dismantling and removing items. The corresponding liability is recognised within provisions.

Freehold land is not depreciated. Assets in the course of construction which have not yet been brought into use are not depreciated until fully commissioned and available for use. Depreciation is provided on all other items of property, plant and equipment so as to write off their carrying value over their expected useful economic lives. It is provided at the following rates:

Freehold property	– 2% per annum straight line
Long term leasehold property improvements	– 2%–10% per annum straight line
Plant and machinery	– 15% per annum reducing balance
Motor vehicles	– 25% per annum reducing balance
E commerce infrastructure	– 10% per annum straight line
Other fixed assets	– 15%–33% per annum straight line

## 1 Accounting policies (continued)

### Inventories

Inventories are initially recognised at cost, and subsequently at the lower of cost and net realisable value. Cost comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

### Biological assets

Biological assets comprise two asset types: livestock, and fish and fish eggs

Livestock is measured at fair value less costs to sell. The fair value of livestock is based on quoted prices of livestock and adjusted for age, breed, and genetic merit in the principal (or most advantageous) market for the livestock, and therefore is categorised within level 2 of the fair value hierarchy set out in IFRS 13.

Fish and fish eggs are, in accordance with IAS 41 'Agriculture', measured at fair value, unless the fair value cannot be measured reliably. The principal components of fish and fish eggs within the business are:

- Salmon broodstock
- Salmon fingerlings
- Salmon eggs
- Lumpfish eggs and fingerlings

Non-current biological assets are those biological assets which will not produce saleable progeny within twelve months of the balance sheet date. Further details of the valuation of fish and fish eggs are given in note 18.

### Government grants

Government grants received on capital expenditure are included in the balance sheet as deferred income and released to the income statement over the life of the asset. Grants for revenue expenditure are netted against the cost incurred by the Group. Where retention of a government grant is dependent on the Group satisfying certain criteria, it is initially recognised as deferred income. When the criteria for retention have been satisfied, the deferred income balance is released to the consolidated income statement or netted against the asset purchased.

### Provisions

The Group has recognised provisions for liabilities of uncertain timing or amount including those for leasehold dilapidations, sale or return obligations and legal disputes. The provision is measured at the best estimate of the expenditure required to settle the obligation at the reporting date, discounted at a pre-tax rate reflecting current market assessments of the time value of money and risks specific to the liability. In the case of leasehold dilapidations, the provision takes into account the potential that the properties in question may be sublet for some or all of the remaining lease term.

### Investments in subsidiary undertakings

Investments in subsidiaries are stated at cost less provision for impairment.

### Investments in associates

An associate is an entity over which the Group has significant influence and that is neither a subsidiary nor an interest in a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The results and assets and liabilities of associates are incorporated in the consolidated financial statements using the equity method of accounting. Under the equity method, investments in associates are carried in the consolidated balance sheet at cost as adjusted for post-acquisition changes in the Group's share of the net assets of the associate, less any impairment in the value of the investment. Losses of an associate in excess of the Group's interest in that associate are not recognised. Additional losses are provided for, and a liability is recognised, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of the associate recognised at the date of acquisition is recognised as goodwill. The goodwill is included within the carrying amount of the investment.

### Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with an original maturity of three months or less. Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are included as a component of cash and cash equivalents for the purpose of the statements of cash flows.

### Dividends

Dividends are recognised when they become legally payable. In the case of interim dividends to equity shareholders, this is when declared by the Directors. In the case of final dividends, this is when approved by the shareholders at the AGM.

## 2 Critical accounting estimates and judgements

The Group makes certain estimates and assumptions regarding the future. Estimates and judgements are continually evaluated based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. In the future, actual experience may differ from these estimates and assumptions. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

### *Estimates and assumptions*

#### (a) Fair value measurement

A number of assets and liabilities included in the Group's financial statements require measurement at, and/or disclosure of, fair value.

The fair value measurement of the Group's financial and non-financial assets and liabilities utilises market observable inputs and data as far as possible. Inputs used in determining fair value measurements are categorised into different levels based on how observable the inputs used in the valuation technique utilised are (the 'fair value hierarchy'):

Level 1: Quoted prices in active markets for identical items (unadjusted)

Level 2: Observable direct or indirect inputs other than Level 1 inputs

Level 3: Unobservable inputs (i.e. not derived from market data).

The classification of an item into the above levels is based on the lowest level of the inputs used that has a significant effect on the fair value measurement of the item. Transfers of items between levels are recognised in the period they occur

The Group measures a number of items at fair value.

Financial instruments (note 3)

Biological assets (note 18)

Business combinations (note 32), including contingent consideration (note 20).

For more detailed information in relation to the fair value measurement of the items above, please refer to the applicable notes.

#### (b) Impairment of goodwill

The Group is required to test, on an annual basis, whether goodwill has suffered any impairment. The recoverable amount is determined based on value in use calculations. The use of this method requires the estimation of future cash flows and the choice of a discount rate in order to calculate the present value of the cash flows. More information including carrying values is included in note 15.

#### (c) Legal proceedings

The Group reviews outstanding legal cases following developments in the legal proceedings and at each reporting date, in order to assess the need for provisions and disclosures in its financial statements. Among the factors considered in making decisions on provisions are the nature of litigation, claim or assessment, the legal process and potential level of damages in the jurisdiction in which the litigation, claim or assessment has been brought, the progress of the case (including the progress after the date of the financial statements but before those statements are issued), the opinions or views of legal advisers, experience on similar cases and any decision of the Group's management as to how it will respond to the litigation, claim or assessment.

#### (d) Valuation of intangible assets

Where the cost of intangible assets acquired as part of business combinations is not separately identifiable or does not represent the fair value, the valuation is calculated based upon value in use which requires the use of a discount rate in order to calculate the present value of cash flows. These intangibles are reviewed annually for impairment. The recoverable amount is determined based on value in use calculations. The use of this method requires the estimation of future cash flows and the choice of a discount rate in order to calculate the present value of the cash flows.

#### (e) Income taxes

The Group is subject to income tax in several jurisdictions and significant judgement is required in determining the provision for income taxes. The Group believes that its accruals for tax liabilities are adequate for all open audit years based on its assessment of many factors including past experience and interpretations of tax law. This assessment relies on estimates and assumptions and may involve a series of complex judgements about future events. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will impact income tax expense in the period in which such determination is made.

#### (f) Share-based payments

The Group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determination of the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determination of the most appropriate inputs to the valuation model including the expected life of the share option, volatility and dividend yield and making assumptions about them. The assumptions and models used for estimating fair value for share-based payment transactions are disclosed in note 30.

### 3 Financial instruments — Risk Management

The Group is exposed through its operations to the following financial risks:

- Credit risk
- Fair value or cash flow interest rate risk
- Foreign exchange risk
- Liquidity risk

In common with all other businesses, the Group is exposed to risks that arise from its use of financial instruments. This note describes the Group's objectives, policies and processes for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout these financial statements. There have been no substantive changes in the Group's exposure to financial instrument risks, its objectives, policies and processes for managing those risks or the methods used to measure them from previous periods unless otherwise stated in this note.

#### *Principal financial instruments*

The principal financial instruments used by the Group, from which financial instrument risk arises, are as follows:

- Trade receivables
- Cash and cash equivalents
- Trade and other payables
- Bank overdrafts
- Floating-rate bank loans
- Contingent consideration

The contingent consideration held within other payables is classified as financial liabilities at fair value through profit and loss. In accordance with IFRS 13 'Fair Value Measurement', the measurement of the fair value of contingent consideration is categorised into Level 3 in the fair value hierarchy, as the inputs are primarily unobservable. The amounts payable for all of the outstanding amounts depend on sales volumes or sales revenues targets. Management uses the actual performance against these targets together with relevant budgets and forecasts to derive the fair value of the contingent consideration. The amount recorded in these financial statements for contingent consideration for all acquisitions with the exception of Akvaforsk Genetic Center Inc, represents the maximum amounts payable. An increased level of performance for Akvaforsk Genetic Center Inc would increase the amount payable. A reduction in the level of performance would significantly reduce the amounts payable.

A summary of the financial instruments held by category is provided below:

#### **Group**

##### **Financial assets**

	2016 £000	2015 £000
<b>Financial assets not measured at fair value</b>		
Cash and cash equivalents (note 34)	38,140	13,564
Trade and other receivables (note 19)	29,926	10,281
<b>Total financial assets</b>	<b>68,066</b>	<b>23,845</b>

##### **Financial liabilities**

	2016 £000	2015 £000
<b>Financial liabilities measured at amortised cost</b>		
Trade and other payables (note 20)	26,268	11,066
Loans and borrowings (note 21)	37,696	156
	<b>63,964</b>	<b>11,222</b>
<b>Financial liabilities at fair value through profit and loss</b>		
Other payables — contingent consideration (note 20)	10,220	16,296
<b>Total financial liabilities</b>	<b>74,184</b>	<b>27,518</b>

### 3 Financial instruments — Risk Management (continued)

#### Principal financial instruments (continued)

##### Company

##### Financial assets

	2016 £000	2015 £000
<b>Financial assets not measured at fair value</b>		
Cash and cash equivalents (note 34)	27,480	5,542
Trade and other receivables (note 19)	101,122	69,977
<b>Total financial assets</b>	<b>128,602</b>	<b>75,519</b>

##### Financial liabilities

	2016 £000	2015 £000
<b>Financial liabilities measured at amortised cost</b>		
Trade and other payables (note 20)	25,916	5,510
Loans and borrowings (note 21)	37,193	60
	63,109	5,570
<b>Financial liabilities at fair value through profit and loss</b>		
Other payables — contingent consideration (note 20)	82	3,351
<b>Total financial liabilities</b>	<b>63,191</b>	<b>8,921</b>

There were no financial instruments classified as available for sale.

#### General objectives, policies and processes

The Board has overall responsibility for the determination of the Group's risk management objectives and policies and, whilst retaining ultimate responsibility for them, it has delegated the authority for designing and operating processes that ensure the effective implementation of the objectives and policies to the Group's finance function.

The Board receives monthly reports from the Group Chief Financial Officer through which it reviews the effectiveness of the processes put in place and the appropriateness of the objectives and policies it sets.

The overall objective of the Board is to set policies that seek to reduce risk as far as possible without unduly affecting the Group's competitiveness and flexibility. Further details regarding these policies are set out below:

#### Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Group is mainly exposed to credit risk from credit sales. It is Group policy, implemented locally, to assess the credit risk of new customers before entering contracts.

Credit risk also arises from cash and cash equivalents and deposits with banks and financial institutions. For banks and financial institutions, only independently rated parties with minimum rating "A" are accepted.

Further disclosures regarding trade and other receivables are provided in note 19.

#### Fair value and cash flow interest rate risk

During the year the Group had borrowings denominated in Sterling and US Dollars. If interest rates on Pound Sterling and US Dollar denominated borrowings had been 100 basis points higher/lower with all other variables held constant, loss after tax for the year ended 30 September 2016 would be £434,000 higher/lower (2015: £nil). The Directors consider that 100 basis points is the maximum likely change in the relevant interest rates over the next year, being the period up to the next point at which the Group expects to make these disclosures.

### 3 Financial instruments — Risk Management (continued)

#### Foreign exchange risk

Foreign exchange risk arises when individual Group entities enter into transactions denominated in a currency other than their functional currency (principally Sterling, Norwegian Krone, Icelandic Krona, Euro, US dollars and Danish Krone). The Group's policy is, where possible, to allow Group entities to settle liabilities denominated in their functional currency with the cash generated from their own operations in that currency. Where Group entities have liabilities denominated in a currency other than their functional currency (and have insufficient reserves of that currency to settle them), cash already denominated in that currency will, where possible, be transferred from elsewhere within the Group.

The table below shows the impact of a 10 per cent. increase and reduction in Sterling against the relevant foreign currencies, with all other variables held constant, on the Group's profit before tax and equity. A greater or smaller change would have a pro-rata effect. The movements in profit arise from retranslation of foreign currency denominated monetary items held at the year end, including the foreign currency revolving credit facility, foreign currency bank accounts, trade receivables, trade and other payables. The movements in equity arise from the retranslation of the net assets of overseas subsidiaries and the intangible assets arising on consolidation in accordance with IFRS 10 Consolidated Financial Statements.

	£/\$		£/€		£/NOK		£/ISK		£/DKK		£/THB	
	Profit £'000	Equity £'000	Profit £'000	Equity £'000	Profit £'000	Equity £'000	Profit £'000	Equity £'000	Profit £'000	Equity £'000	Profit £'000	Equity £'000
2016 10% increase in rate	3,214	(20,545)	174	(554)	359	(2,659)	412	(2,518)	(41)	(41)	-	(854)
2016 10% reduction in rate	(3,928)	25,110	(213)	677	(439)	3,250	(504)	3,077	51	51	-	1,043
2015 10% increase in rate	(98)	(212)	63	(75)	218	(2,276)	833	(1,913)	(132)	(132)	-	40
2015 10% reduction in rate	120	259	(77)	92	(266)	2,781	(1,018)	2,338	161	161	-	(49)

#### Liquidity risk

Liquidity risk arises from the Group's management of working capital and the finance charges and principal repayments on its debt instruments. It is the risk that the Group will encounter difficulty in meeting its financial obligations as they fall due.

The Group's policy is to ensure that it will always have sufficient cash to allow it to meet its liabilities when they become due. To achieve this aim, the Group seeks to maintain cash balances (or agreed facilities) sufficient to meet expected requirements detailed in rolling three month cashflow forecasts, and in longer term cashflow forecasts.

### 3 Financial instruments — Risk Management (continued)

The following table sets out the contractual maturities (representing undiscounted contractual cash-flows) of financial liabilities:

#### Group

As at September 2016	Up to 3 months £000	Between 3 and 12 months £000	Between 1 and 2 years £000	Between 2 and 5 years £000	Over 5 years £000
Trade and other payables	26,613	1,051	7,862	962	-
Loans and borrowings	416	1,232	1,438	40,042	60
<b>Total</b>	<b>27,029</b>	<b>2,283</b>	<b>9,300</b>	<b>41,004</b>	<b>60</b>

As at September 2015	Up to 3 months £000	Between 3 and 12 months £000	Between 1 and 2 years £000	Between 2 and 5 years £000	Over 5 years £000
Trade and other payables	9,522	10,510	3,946	2,608	776
Loans and borrowings	16	50	37	-	60
<b>Total</b>	<b>9,538</b>	<b>10,560</b>	<b>3,983</b>	<b>2,608</b>	<b>836</b>

#### Company

As at September 2016	Up to 3 months £000	Between 3 and 12 months £000	Between 1 and 2 years £000	Between 2 and 5 years £000	Over 5 years £000
Trade and other payables	25,916	82	-	-	-
Loans and borrowings	326	966	1,292	40,042	60
<b>Total</b>	<b>26,242</b>	<b>1,048</b>	<b>1,292</b>	<b>40,042</b>	<b>60</b>

As at September 2015	Up to 3 months £000	Between 3 and 12 months £000	Between 1 and 2 years £000	Between 2 and 5 years £000	Over 5 years £000
Trade and other payables	5,510	3,000	70	281	-
Loans and borrowings	-	-	-	-	60
<b>Total</b>	<b>5,510</b>	<b>3,000</b>	<b>70</b>	<b>281</b>	<b>60</b>

#### Capital Management

The capital structure of the Group consists of debt, as analysed in Note 21, and equity attributable to the equity holders of the Parent Company, comprising share capital, share premium, non-controlling interest, retained earnings, and share based payment reserve as shown in the Consolidated Statement of Changes in Equity. The Group manages its capital with the objective that all entities within the Group continue as going concerns while maintaining an efficient structure to minimise the cost of capital and ensuring that the Group complies with the banking covenants associated with the external borrowing facilities. These covenants are related to interest cover and leverage. The Group is not restricted by any externally imposed capital requirements.

#### 4 Revenue

Revenue arises from:

	2016 £000	2015 £000
Sale of goods	94,751	34,578
Provision of services	14,624	9,621
	109,375	44,199

#### 5 Expenses by nature

	2016 £000	2015 £000
Changes in inventories of finished goods and work in progress	1,186	978
Changes in biological assets	(928)	452
Write-down of inventory to net realisable value	686	767
Course fees	2,648	1,578
Raw materials and consumables used	43,634	14,734
Transportation expenses	1,137	841
Staff costs (see note 7)	26,499	15,099
Motor, travel and entertainment	3,093	1,512
Premises costs	6,516	2,553
Advertising and marketing	1,690	1,314
Professional fees	4,563	2,350
Foreign exchange gains	(1,674)	(1,874)
Losses on disposal of property, plant and equipment	30	21
Exceptional expenses (see note 10)	146	160
Other research and development costs	7,702	5,389
Other investing activities	12,851	4,326
Depreciation of PPE	2,859	1,304
Amortisation of intangible assets	13,749	3,064
Other costs	3,459	1,230
Total cost of sales, operating costs, depreciation and amortisation	129,846	55,798



**6 Auditor's remuneration**

	2016 £000	2015 £000
Audit of these financial statements	64	4
Amounts receivable by auditors and their associates in respect of:		
Audit of financial statements of subsidiaries pursuant to legislation	249	140
Audit related assurance services	23	16
Services relating to taxation	3	62
Due diligence	907	82
All other services	-	27
	<b>1,246</b>	<b>331</b>

The 2016 fees for the services relating to taxation and the due diligence were performed by the company's previous auditor, BDO LLP. The remainder of the fees for 2016 were due to KPMG LLP, who were appointed during the year.

**7 Staff costs**

	2016 £000	2015 £000
Staff costs (including Directors) comprise:		
Wages and salaries	22,741	12,994
Social security contributions and similar taxes	1,930	1,168
Defined contribution pension cost	1,079	479
Share-based payment expense (note 30)	749	458
	<b>26,499</b>	<b>15,099</b>

	2016 No.	2015 No.
The average monthly number of employees, including Directors, during the year was as follows:		
Production	449	247
Administration	131	53
Management	123	91
	<b>703</b>	<b>391</b>

## 7 Staff costs (continued)

### Directors' remuneration

	Salary £000	Bonus £000	Taxable benefits £000	Long-term incentive £000	Pension £000	Fees £000	2016 £000	2015 £000
Roland Bonney	171	99	2	-	16	-	288	207
Mark Plampin	163	93	2	-	11	-	269	200
Malcolm Pye	188	110	3	-	17	-	318	216
Basil Brookes	-	-	-	-	-	35	35	35
Alex Hambro	-	-	-	-	-	45	45	45
Susan Searle	-	-	-	-	-	43	43	35
<b>Total</b>	<b>522</b>	<b>302</b>	<b>7</b>	<b>-</b>	<b>44</b>	<b>123</b>	<b>998</b>	<b>738</b>

Of the 2015 total of £738,000, £705,000 was emoluments and £33,000 related to pension and other post-employment benefit costs.

During the year retirement benefits were accruing to 3 Directors (2015: 3) in respect of defined contribution pension schemes. The cost of employer National Insurance contributions in relation to the Directors was £146,000 (2015: £105,000).

The value of the Group's contributions paid to a defined contribution pension scheme in respect of the highest paid Director amounted to £17,000 (2015: £13,000).

In addition to the above, there was an accounting charge for share based payments in respect of the Directors for £35,000 (2015: £59,000). The aggregate gain on the exercise of options by the Directors during the year was £nil (2015: £nil).

Directors' interests under the Company's employee share plans

Director	Share option scheme	Options held at 30 September 2015	Options exercised in year	Options granted in year	Options held at 30 September 2016	Exercise price	Grant date	Date from which exercisable
Mark Plampin	EMI scheme	135,000	-	-	135,000	0.1p	29 August 2013	29 August 2016
Mark Plampin	CSOP II	67,647	-	-	67,647	0.1p	9 March 2015	8 March 2018

Further details of Directors' remuneration are provided in the Remuneration Report on pages 74 to 78.

The key management of the Group is deemed to be the Board of Directors who have authority and responsibility for planning and controlling all significant activities of the Group.

## 8 Segment information

Operating segments are reported in a manner consistent with the reports made to the chief operating decision maker. It is considered that the role of chief operating decision maker is performed by the Board of Directors.

The Group operates globally and for management purposes is organised into reportable segments as follows:

- *Animal Health Division* — provides veterinary services, environmental services diagnostics and animal health products to global aquaculture, and manufactures licenced veterinary vaccines and vaccine components;
- *Breeding and Genetics Division* — harnesses industry leading salmon breeding technologies combined with state-of-the-art production facilities to provide a range of year-round high genetic merit ova;
- *Advanced Animal Nutrition* — manufactures and provides technically advanced nutrition and health products to the global aquaculture industry;
- *Corporate* — the corporate segment represents revenues earned from recharging certain central costs to the operating divisions, together with unallocated central costs.

## 8 Segment information (continued)

In addition to the above, reported together as "all other segments" are the following divisions, the results of which are not significant on an individual basis:

- *Sustainability Science Division* — provides sustainable food production consultancy, technical consultancy and assurance services;
- *Technical Publishing Division* — promotes sustainable food production and ethics through online news and technical publications for the international agriculture and food processing sectors and through delivery of training courses to the industries.

### Measurement of operating segment profit or loss

The Group separates its operations into Trading Activities and Investing Activities to report segmental performance. These measures are used by management for planning and reporting purposes. These measures are not defined in International Financial Reporting Standards and may not be comparable with similarly described measures used by other companies. Trading and Investing Activities are described further in note 26.

Inter-segment sales are priced along the same lines as sales to external customers, with an appropriate discount being applied to encourage use of Group resources at a rate acceptable to local tax authorities. This policy was applied consistently throughout the current and prior period.

### Year ended 30 September 2016

	Notes	Animal Health £000	Breeding and Genetics £000	Advanced Animal Nutrition £000	All other segments £000	Corporate £000	Inter-segment sales £000	Total £000
Revenue		24,837	20,717	55,024	11,195	3,002	(5,400)	109,375
Cost of sales		(15,035)	(13,523)	(26,517)	(6,985)	(938)	4,436	(58,562)
Gross profit/(loss)		9,802	7,194	28,507	4,210	2,064	(964)	50,813
Operating costs relating to Trading Activities		(5,352)	(3,553)	(11,382)	(4,049)	(4,317)	151	(28,502)
EBITDA from Trading Activities		4,450	3,641	17,125	161	(2,253)	(813)	22,311
Investing Activities:								
R&D expenditure	26	(8,258)	(2,195)	(1,341)	-	-	74	(11,720)
Pre-operational expenses	26	(414)	(61)	80	(1,550)	-	582	(1,363)
Adjusted EBITDA		(4,222)	1,385	15,864	(1,389)	(2,253)	(157)	9,228
Acquisition-related (expenses)/income	26	(257)	(2,387)	2	-	(10,317)	14	(12,945)
Exceptional items	10,26	-	-	-	(146)	-	-	(146)
EBITDA		(4,479)	(1,002)	15,866	(1,535)	(12,570)	(143)	(3,863)
Depreciation		(721)	(796)	(1,016)	(271)	(55)	-	(2,859)
Amortisation		(792)	(1,850)	(10,369)	(738)	-	-	(13,749)
Operating profit/(loss)		(5,992)	(3,648)	4,481	(2,544)	(12,625)	(143)	(20,471)
Finance costs								(6,170)
Finance income								3,984
Share of profit of equity-accounted investees, net of tax								273
Group loss before tax								(22,384)

## 8 Segment information (continued)

Year ended 30 September 2015

	Notes	Animal Health £000	Breeding and Genetics £000	Advanced Animal Nutrition £000	All other segments £000	Corporate £000	Inter-segment sales £000	Total £000
Revenue		21,098	15,871	-	10,101	2,271	(5,142)	44,199
Cost of sales		(14,524)	(9,912)	-	(6,906)	(1,463)	4,703	(28,102)
Gross profit/(loss)		6,574	5,959	-	3,195	808	(439)	16,097
Operating costs relating to Trading Activities		(4,445)	(1,339)	-	(3,405)	(4,924)	439	(13,674)
EBITDA from Trading Activities		2,129	4,620	-	(210)	(4,116)	-	2,423
Investing Activities:								
R&D expenditure	26	(5,199)	(1,396)	-	-	-	-	(6,595)
Pre-operational expenses	26	(887)	-	-	(649)	(29)	-	(1,565)
Adjusted EBITDA		(3,957)	3,224	-	(859)	(4,145)	-	(5,737)
Acquisition-related (expenses)/income	26	(65)	1,163	-	(18)	(2,414)	-	(1,334)
Exceptional items	10,26	-	(1)	-	509	(668)	-	(160)
EBITDA		(4,022)	4,386	-	(368)	(7,227)	-	(7,231)
Depreciation		(653)	(406)	-	(192)	(53)	-	(1,304)
Amortisation		(1,251)	(928)	-	(885)	-	-	(3,064)
Operating profit/(loss)		(5,926)	3,052	-	(1,445)	(7,280)	-	(11,599)
Finance costs								(34)
Finance income								274
Group loss before tax								(11,359)

### External revenue by location of customers

	2016 £000	2015 £000
United Kingdom	13,610	13,740
Chile	3,043	6,411
India	9,584	-
Vietnam	7,258	-
Norway	18,697	12,629
Rest of Europe	18,772	8,792
Other	38,411	2,627
	109,375	44,199

No customers accounted for greater than 10% of total turnover in the year.

## 8 Segment information (continued)

### Non-current assets by location of assets

	2016 £000	2015 £000
Belgium	276,327	2,288
UK	39,717	28,978
Rest of Europe	80,336	59,217
Rest of world	12,036	4,362
	408,416	94,845

## 9 Net finance costs/(income)

	2016 £000	2015 £000
Interest received on bank deposits	254	274
Foreign exchange gains on financing activities	3,730	-
<b>Finance income</b>	<b>3,984</b>	<b>274</b>
Finance leases (interest portion)	(16)	(3)
Foreign exchange losses on financing activities	(4,978)	-
Interest expense on financial liabilities measured at amortised cost	(1,176)	(31)
<b>Finance costs</b>	<b>(6,170)</b>	<b>(34)</b>
<b>Net finance (costs)/income recognised in profit or loss</b>	<b>(2,186)</b>	<b>240</b>

The foreign exchange gains of £3,730,000 were made on a foreign currency hedging instrument entered into to fix the exchange rate for the US Dollar consideration paid on the acquisition of INVE Aquaculture B.V.

## 10 Exceptional items

Items that are material because of their size or nature, non-recurring and whose significance is sufficient to warrant separate disclosure and identification within the consolidated financial statements are referred to as exceptional items. The separate reporting of exceptional items helps to provide an understanding of the Group's underlying performance.

	2016 £000	2015 £000
Exceptional IPO costs	-	24
Exceptional restructuring costs	146	136
<b>Total exceptional costs</b>	<b>146</b>	<b>160</b>

Restructuring costs of £146,000 (2015: £136,000) were incurred on re-organisations within the Sustainability Science Division during the year. On 18 December 2013 Benchmark Holdings plc was admitted to trading on AIM with significant non-recurring costs being incurred as a result. £24,000 of these costs fell due in 2015.

## 11 Taxation

Amounts recognised in profit or loss

	2016 £000	2015 £000
<b>Current tax expense</b>		
Analysis of charge in period		
<b>Current tax:</b>		
Current income tax expense on profits for the period	1,252	877
Adjustment in respect of prior periods	(1,250)	(23)
<b>Total current tax</b>	<b>2</b>	<b>854</b>
<b>Deferred tax expense</b>		
Origination and reversal of temporary differences	(4,048)	(284)
Deferred tax movements in respect of prior periods	8	(174)
<b>Total deferred tax credit (Note 23)</b>	<b>(4,040)</b>	<b>(458)</b>
<b>Total tax (credit)/charge</b>	<b>(4,038)</b>	<b>396</b>

The reasons for the difference between the actual tax (credit)/charge for the year and the standard rate of corporation tax in the United Kingdom applied to profits for the year are as follows:

	2016 £000	2015 £000
Accounting loss before income tax	(22,384)	(11,359)
Expected tax credit based on the standard rate of UK corporation tax at the domestic rate of 20% (2015: 20%)	(4,477)	(2,272)
Expenses not deductible for tax purposes	2,982	532
Research and development relief	(54)	(230)
Deferred tax not recognised	2,592	2,463
Adjustment to tax charge in respect of prior periods	(1,242)	(197)
Profits of associate reported net of tax	(54)	-
Effects of changes in tax rates	(475)	-
Different tax rates in overseas jurisdictions	(3,310)	100
<b>Total tax (credit)/charge</b>	<b>(4,038)</b>	<b>396</b>

### *Changes in tax rates and factors affecting the future tax charge*

Reductions in the UK corporation tax rate were substantively enacted in the year. The main rate of corporation tax was reduced from 20 per cent to 19 per cent effective from 1 April 2017 and to 17 per cent from 1 April 2020. Deferred tax is calculated at the substantively enacted rates, at which the temporary differences and tax losses are expected to reverse, in the territories in which they arose.

The adjustment in respect of prior periods includes £1,037,000 in relation to Research and Development tax credits from 2014 and 2015 received during the year.

There was no deferred tax recognised in other comprehensive income.

## 12 Earnings/loss per share

Basic earnings/loss per share is calculated by dividing the profit or loss attributable to ordinary equity holders of the Company by the weighted average number of ordinary shares in issue during the period.

	2016	2015
Loss attributable to equity holders of the parent (£000)	(18,337)	(11,988)
Weighted average number of shares in issue (thousands)	417,952	201,280
Basic loss per share (pence)	(4.39)	(5.96)

Diluted loss/earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. This is done by calculating the number of shares that could have been acquired at fair value (determined as the average market price of the Company's shares since admission to AIM) based on the monetary value of the subscription rights attached to outstanding share options and warrants.

Therefore, the Company is required to adjust the earnings/loss per share calculation in relation to the share options that are in issue under the Company's share based incentive schemes as follows:

	2016	2015
Loss attributable to equity holders of the parent (£000)	(18,337)	(11,988)
Weighted average number of shares in issue (thousands)	417,952	201,280
Diluted loss per share (pence)	(4.39)	(5.96)

A total of 5,891,889 potential ordinary shares have not been included within the calculation of statutory diluted earnings/loss per share for the year (2015: 2,401,186) as they are anti-dilutive. However, these potential ordinary shares could dilute earnings/loss per share in the future.

### Earnings/loss per share from Trading Activities

Net profit/loss attributable to equity shareholders has been adjusted to exclude exceptional items and other operating costs relating to Investing Activities as disclosed in note 26.

	2016	2015
Profit/(Loss) from Trading Activities attributable to equity holders of the parent (£000)	7,481	(2,273)
Weighted average number of shares in issue (thousands)	417,952	201,280
Earning/(Loss) per share from Trading Activities (pence)	1.79	(1.13)

Diluted earnings/loss per share from Trading Activities were as follows:

	2016	2015
Profit/(Loss) from Trading Activities attributable to equity holders of the parent (£000)	7,481	(2,273)
Weighted average number of shares in issue (thousands)	419,600	201,280
Diluted earnings/(loss) per share from Trading Activities (pence)	1.78	(1.13)

## 13 Property, plant and equipment

Group	Freehold Land and Buildings £000	Assets in the course of construction £000	Long Term Leasehold Property Improvements £000	Plant and Machinery £000	E commerce Infra-structure £000	Office Equipment and Fixtures £000	Total £000
<b>Cost</b>							
Balance at 1 October 2014	728	142	2,615	4,540	204	905	9,134
Additions	264	10,950	14	1,628	-	178	13,034
On acquisition	4,638	-	77	1,530	-	71	6,316
Reclassification	-	-	114	39	-	(153)	-
Exchange differences	-	-	(39)	31	-	(10)	(18)
Disposals	-	-	(60)	(211)	-	(1)	(272)
<b>Balance at 30 September 2015</b>	<b>5,630</b>	<b>11,092</b>	<b>2,721</b>	<b>7,557</b>	<b>204</b>	<b>990</b>	<b>28,194</b>
Balance at 1 October 2015	5,630	11,092	2,721	7,557	204	990	28,194
Additions	1,268	11,785	487	4,803	-	317	18,660
On acquisition	3,017	555	-	2,204	-	313	6,089
Reclassification	518	(1,718)	1,480	34	43	(359)	(2)
Fair value adjustment	-	-	(75)	-	-	-	(75)
Exchange differences	2,015	93	267	1,325	-	102	3,802
Disposals	-	-	(33)	(411)	-	(227)	(671)
<b>Balance at 30 September 2016</b>	<b>12,448</b>	<b>21,807</b>	<b>4,847</b>	<b>15,512</b>	<b>247</b>	<b>1,136</b>	<b>55,997</b>
<b>Accumulated Depreciation</b>							
Balance at 1 October 2014	-	-	234	1,151	145	362	1,892
Depreciation charge for the year	175	-	253	736	33	107	1,304
Exchange differences	-	-	-	(40)	-	-	(40)
Disposals	-	-	(36)	(67)	-	-	(103)
<b>Balance at 30 September 2015</b>	<b>175</b>	<b>-</b>	<b>451</b>	<b>1,780</b>	<b>178</b>	<b>469</b>	<b>3,053</b>
Balance at 1 October 2015	175	-	451	1,780	178	469	3,053
Depreciation charge for the year	638	-	358	1,638	21	204	2,859
Reclassification	-	-	79	162	42	(283)	-
Exchange differences	143	-	28	321	1	36	529
Disposals	-	-	-	(300)	-	(167)	(467)
<b>Balance at 30 September 2016</b>	<b>956</b>	<b>-</b>	<b>916</b>	<b>3,601</b>	<b>242</b>	<b>259</b>	<b>5,974</b>
<b>Net book value</b>							
<b>At 30 September 2016</b>	<b>11,492</b>	<b>21,807</b>	<b>3,931</b>	<b>11,911</b>	<b>5</b>	<b>877</b>	<b>50,023</b>
<b>At 30 September 2015</b>	<b>5,455</b>	<b>11,092</b>	<b>2,270</b>	<b>5,777</b>	<b>26</b>	<b>521</b>	<b>25,141</b>
<b>At 1 October 2014</b>	<b>728</b>	<b>142</b>	<b>2,381</b>	<b>3,389</b>	<b>59</b>	<b>543</b>	<b>7,242</b>



**13 Property, plant and equipment (continued)**

Security over the assets is disclosed within note 21.

The above includes the following in respect of plant and machinery held under finance leases (note 27):

	2016 £000	2015 £000
Cost	824	259
Accumulated depreciation	(266)	(63)
<b>Net book value</b>	<b>558</b>	<b>196</b>

Company	Office equipment and fixtures £000
<i>Cost</i>	
Balance at 1 October 2014	147
Additions	115
Disposals	(44)
Balance at 1 October 2015	218
Additions	148
<b>Balance at 30 September 2016</b>	<b>366</b>

*Accumulated depreciation*

Balance at 1 October 2014	82
Depreciation charge for the year	22
Disposals	(40)
Balance at 1 October 2015	64
Depreciation charge for the year	62
<b>Balance at 30 September 2016</b>	<b>126</b>

*Net book value*

<b>At 30 September 2016</b>	<b>240</b>
At 30 September 2015	154
At 1 October 2014	65

## 14 Intangible assets

	Websites £000	Goodwill £000	Patents and Trademarks £000	Intellectual Property £000	Customer Lists £000	Contracts £000	Licences £000	Genetics £000	Development costs £000	Total £000
<i>Cost or valuation</i>										
Balance at 1 October 2014	517	2,701	590	1,678	-	1,835	3,190	-	-	10,511
Additions — on acquisition	-	27,931	-	3,074	1,327	7,223	2,675	22,121	-	64,351
Additions — externally acquired	-	-	119	-	-	-	-	-	-	119
Exchange differences	-	(930)	-	(15)	-	(534)	(41)	(1,865)	-	(3,385)
Balance at 30 September 2015	517	29,702	709	4,737	1,327	8,524	5,824	20,256	-	71,596
Balance at 1 October 2015	517	29,702	709	4,737	1,327	8,524	5,824	20,256	-	71,596
Additions — on acquisition	-	103,137	208	117,019	4,789	-	25,562	601	-	251,316
Additions — externally acquired	44	-	30	9	-	-	-	-	-	83
Additions — internally developed	-	-	-	-	-	-	-	-	1,440	1,440
Disposals	-	(345)	-	-	-	-	-	-	-	(345)
Exchange differences	-	20,690	128	16,625	667	1,124	4,192	5,332	-	48,758
Balance at 30 September 2016	561	153,184	1,075	138,390	6,783	9,648	35,578	26,189	1,440	372,848
<i>Accumulated amortisation and impairment</i>										
Balance at 1 October 2014	459	273	388	-	-	1,087	483	-	-	2,690
Amortisation charge for the year	56	-	61	261	133	1,369	454	385	-	2,719
Impairment	-	345	-	-	-	-	-	-	-	345
Exchange differences	-	-	-	-	-	(25)	-	(5)	-	(30)
Balance at 30 September 2015	515	618	449	261	133	2,431	937	380	-	5,724
Balance at 1 October 2015	515	618	449	261	133	2,431	937	380	-	5,724
Amortisation charge for the year	3	-	84	9,488	349	1,452	1,797	576	-	13,749
Disposals	-	(345)	-	-	-	-	-	-	-	(345)
Exchange differences	-	6	74	541	9	240	124	188	-	1,182
Balance at 30 September 2016	518	279	607	10,290	491	4,123	2,858	1,144	-	20,310
<i>Net book value</i>										
At 30 September 2016	43	152,905	468	128,100	6,292	5,525	32,720	25,045	1,440	352,538
At 30 September 2015	2	29,084	260	4,476	1,194	6,093	4,887	19,876	-	65,872
At 1 October 2014	58	2,428	202	1,678	-	748	2,707	-	-	7,821

Additions relating to business combinations in the year are detailed in note 31.

## 15 Impairment testing of goodwill

Goodwill acquired in a business combination is allocated, at acquisition, to the cash generating units (CGUs) that are expected to benefit from the business combination. The Group tests goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired.

Goodwill arises across all of the Group's operating segments, and is allocated specifically against the following CGUs:

	Animal Health 2016 £000	Sustainability Science 2016 £000	Breeding and Genetics 2016 £000	Technical Publishing 2016 £000	Advanced Animal Nutrition 2016 £000	Total 2016 £000
FVG Limited	288	-	-	-	-	288
Benchmark Vaccines Limited	439	-	-	-	-	439
Atlantic Veterinary Services Limited	167	-	-	-	-	167
FAI do Brasil Criacao Animal Ltda	-	96	-	-	-	96
FAI Aquaculture Limited	-	446	-	-	-	446
5M Enterprises Limited	-	-	-	774	-	774
Salmobreed AS	-	-	7,590	-	-	7,590
Stofnfiskur HF	-	-	13,512	-	-	13,512
Akvaforsk Genetic Center*	-	-	9,334	-	-	9,334
Improve International Limited	-	-	-	2,995	-	2,995
INVE Aquaculture Group	-	-	-	-	117,264	117,264
	894	542	30,436	3,769	117,264	152,905

\*Includes goodwill arising from the joint acquisition of Akvaforsk Genetics Center AS and Akvaforsk Genetics Center Inc.

	Animal Health 2015 £000	Sustainability Science 2015 £000	Breeding and Genetics 2015 £000	Technical Publishing 2015 £000	Advanced Animal Nutrition 2015 £000	Total 2015 £000
FVG Limited	288	-	-	-	-	288
Benchmark Vaccines Limited	439	-	-	-	-	439
Atlantic Veterinary Services Limited	167	-	-	-	-	167
FAI do Brasil Criacao Animal Ltda	-	96	-	-	-	96
FAI Aquaculture Limited	-	446	-	-	-	446
5M Enterprises Limited	-	-	-	774	-	774
Salmobreed AS	-	-	6,125	-	-	6,125
Stofnfiskur HF	-	-	10,405	-	-	10,405
Akvaforsk Genetic Center*	-	-	7,349	-	-	7,349
Improve International Limited	-	-	-	2,995	-	2,995
	894	542	23,879	3,769	-	29,084

\*Includes goodwill arising from the joint acquisition of Akvaforsk Genetics Center AS and Akvaforsk Genetics Center Inc.

The recoverable amounts of the above CGUs have been determined from value in use calculations which have been predicated on discounted cash flow projections from formally approved budgets. These budgets cover a four-year period to 30 September 2020 and were then extrapolated into perpetuity taking account of specific growth rates for future cash flows, using individual business operating margins based on past experience and future expectations in light of anticipated economic and market conditions.

The pre-tax cashflows that these projections produced were discounted at pre-tax discount rates based on the Group's beta adjusted cost of capital reflecting management's assessment of specific risks related to each cash generating unit. Pre-tax discount rates of between 10% and 14% have been used in the impairment calculations which the Directors believe fairly reflect the risks inherent in each of the CGUs, and a 2.5% growth rate was used in extrapolating the budgets into perpetuity.

The value in use assessment is sensitive to changes in the key assumptions used, most notably the discount rate and the growth rates. Sensitivity analysis has been performed on the individual CGUs, and based on this analysis, no reasonably possible changes to these assumptions resulted in an additional impairment charge being required.

## 16 Subsidiary undertakings

The direct and indirect subsidiary undertakings of Benchmark Holdings plc, all of which have been included in these consolidated financial statements, are as follows:

Name	Country of incorporation	Proportion of ownership interest as at 30 September	
		2016	2015
Animal Health Division			
Benchmark Animal Health Group Limited	United Kingdom	100%	100%
Benchmark Animal Health Limited	United Kingdom	100%	100%
Benchmark Vaccines Limited	United Kingdom	100%	100%
FVG Limited	United Kingdom	100%	100%
Fish Vet Group Limited (dormant)	United Kingdom	100%	100%
Fish Vet Group Asia Limited	Thailand	100%	100%
Fish Vet Group Norge AS	Norway	100%	100%
FVG Inc	USA	100%	100%
Atlantic Veterinary Services Limited	Ireland	100%	100%
Fish Vet Group SPA	Chile	100%	100%
FVG Canada Inc	Canada	100%	100%
Sustainability Science Division			
FAI Farms Limited	United Kingdom	100%	100%
FAI do Brasil Criacao Animal Ltda	Brazil	99.25%	99.25%
FAI Aquaculture Limited	United Kingdom	100%	100%
RL Consulting Limited	United Kingdom	100%	100%
Trie Benchmark Limited	United Kingdom	100%	100%
Allan Environmental Limited	United Kingdom	100%	100%
Dust Collective Limited	United Kingdom	100%	100%
Dust Collective LLC	USA	100%	100%
Viking Fish Farms Limited (dormant)	United Kingdom	100%	100%
Woodland Limited (dormant)	United Kingdom	100%	100%
Technical Publishing Division			
5M Enterprises Limited	United Kingdom	98.50%	98.50%
5M Enterprises Inc	USA	98.50%	98.50%
Curriculo Limited (dormant)	United Kingdom	98.50%	98.50%
000 5M Enterprises**	Russia	0%	0%
Improve International Limited	United Kingdom	100%	100%
Continuous Medical Training LDA	Portugal	100%	100%
Improve International GmbH	Germany	100%	100%
Improve International Australia Pty	Australia	70%	70%
Improve Formacion Veterinaria	Spain	100%	100%
Improve France SARL	France	100%	100%
Improve Mediterranean Limited (dormant)	United Kingdom	100%	100%
Ascomber Limited (dormant)	United Kingdom	100%	100%
AquacultureUK Limited (dormant)	United Kingdom	100%	100%
European School of Veterinary Post-Graduate Studies**	United Kingdom	0%	0%
Breeding and Genetics Division			
Benchmark Genetics Limited	United Kingdom	100%	100%
Salmobreed AS	Norway	100%	100%
Stofnfiskur HF	Iceland	89.45%	89.45%
Akvaforsk Genetic Center AS	Norway	100%	100%
Akvaforsk Genetics Center Inc*	USA	80%	80%
Akvaforsk Genetic Center Spring Mexico, SA de CV (dormant)*	Mexico	80%	80%
Akvaforsk Do Brasil Cultivo De Especies Aquaticas LTDA*	Brazil	80%	80%
Genetilapia, SA de CV*	Mexico	41%	41%

## 16 Subsidiary undertakings (continued)

Name	Country of incorporation	Proportion of ownership interest as at 30 September	
		2016	2015
Breeding and Genetics Division (continued)			
Stofnfiskur Chile Limitada (dormant)	Chile	89.45%	89.45%
Stofngen EHF (dormant)	Iceland	62.62%	62.62%
Sudourfax EHF (dormant)	Iceland	89.45%	89.45%
Salmobreed Salten AS***	Norway	50%	50%
Spring Genetics SRL	Costa Rica	80%	-
Genetica Spring SAS	Colombia	100%	-
Animal Advanced Nutrition Division			
TomAlgae C.V.B.A.	Belgium	100%	100%
Inve Aquaculture Holding BV	Netherlands	100%	-
Inve Aquaculture Temp Holding BV	Netherlands	100%	-
Inve Asia Ltd	Hong Kong	100%	-
Inve Latin America BV	Netherlands	100%	-
Inve Aquaculture Europe Holding BV	Netherlands	100%	-
Inve Technologies NV	Belgium	100%	-
Inve Asia Services Ltd	Thailand	100%	-
Inve (Thailand) Ltd	Thailand	100%	-
PT. Inve Indonesia	Indonesia	100%	-
Inve Eurasia SA	Turkey	100%	-
Inve Hellas SA	Greece	100%	-
Fortune Ocean Technologies Ltd (dormant)	Hong Kong	100%	-
Tianjin Inve Aquculture Co Ltd	China	100%	-
Inve Vietnam Ltd	Vietnam	100%	-
Inve Animal Health SA	Spain	100%	-
Fortune Ocean Americas LLC	USA	100%	-
Inve Aquaculture Mexico SA de CV	Mexico	100%	-
Inve do Brasil Ltda	Brazil	100%	-
Invecuador SA	Ecuador	100%	-
Inveservicios SA de CV	Mexico	100%	-
Inve Aquaculture NV	Belgium	100%	-
Maricoltura di Rosignan Solvay Srl	Italy	100%	-
Inve USA Holdings Inc	USA	100%	-
Sanders Brine Shrimp Company LC	USA	100%	-
Golden West Artemia Inc	USA	100%	-
Inland Sea Inc	USA	100%	-
United Aquaculture Technologies LLC	USA	100%	-
Inve Aquaculture Inc	USA	100%	-
Salt Creek Holdings Inc	USA	100%	-
Salt Creek Inc	USA	100%	-

\* A put and call option agreement is in place to acquire the remaining 20% of Akvaforsk Genetic Center Inc, so the Group controls 100% of that company and its wholly owned subsidiaries despite having an 80% equity holding.

\*\* European School of Veterinary Post-Graduate Studies is a company limited by guarantee and although the Group has no equity holding in the company, its results are consolidated into this annual report by virtue of control exercised under the provisions of IFRS 10 — Consolidated Financial Statements. The same is true of 0005M Enterprises, a limited company incorporated in Russia.

\*\*\* Whilst Salmobreed Salten AS was 50% owned by SalmoBreed AS at 30 September 2016, the shareholders' agreement stipulates that SalmoBreed AS will become the majority shareholder over the course of the following twelve months. For this reason SalmoBreed Salten AS has been consolidated as a subsidiary undertaking rather than as a joint venture.

## 16 Subsidiary undertakings (continued)

	Investments in subsidiary companies £000
<b>Cost or valuation</b>	
Balance at 1st October 2014	5,610
Additions	23,727
Capitalisation of intercompany balances	1,015
Balance at 30 September 2015	30,352
Additions	231,267
Capitalisation of intercompany balances	1,133
<b>Balance at 30 September 2016</b>	<b>262,752</b>
<b>Provisions</b>	
Balance at 1st October 2014	
Provision against investment in subsidiary company	(850)
<b>Balance at 30 September 2015 and at 30 September 2016</b>	<b>(850)</b>
<b>Net book value</b>	
<b>At 30 September 2016</b>	<b>261,902</b>
At 30 September 2015	29,502
At 1 October 2014	5,610

In 2016, the Company acquired 100% of the share capital of INVE Aquaculture Holding B.V. for total consideration of £230,667,000, full details of which have been outlined in note 31.

During the year, intercompany balances totalling £1,133,000 were converted into share capital (2015: £1,015,000). Additionally, £600,000 (2015: £330,000) of the charge associated with share options relates to employees of subsidiary companies, and so this amount has been treated as an investment in the books of the Company.

In 2015, the Company acquired 100% of the share capital of TomAlgae C.V.BA for total consideration of £642,000 and 100% of the share capital of Improve International Limited and its subsidiaries for a maximum consideration of £6,531,000. Subsequent to the acquisition of TomAlgae C.V.B.A., the Group invested a further £1,224,000 to provide long term funding to the business, and this was converted to share capital.

In 2015, the Company made a £15,000,000 investment in Benchmark Genetics Limited in order to fund the purchase of Stofnfiskur HF and Salmobreed AS.

In 2015, as part of the restructuring of the Sustainability Science Division, a review of the carrying value of its investments in subsidiaries was conducted and the Company made a provision of £850,000.

## 17 Inventories

Group	2016 £000	2015 £000
Raw materials	6,510	1,772
Work in progress	10,039	1,655
Finished goods and goods for resale	6,682	1,932
<b>Total inventories at the lower of cost and net realisable value</b>	<b>23,231</b>	<b>5,359</b>

During 2016, £44,320,000 (2015: £15,501,000) was recognised as an expense for inventories carried at net realisable value. This is recognised in cost of sales. The cost of inventories recognised as an expense includes £686,000 (2015: £767,000) in respect of write-downs of inventory to net realisable value.

The Company did not have any inventories at the year end (2015: £nil).

## 18 Biological assets

Group	2016 £000	2015 £000
Organic sheep	262	223
Organic beef	244	202
Organic pigs	-	2
Organic hens	23	-
Broodstock, eggs and fingerlings	11,330	7,913
<b>Total biological assets</b>	<b>11,859</b>	<b>8,340</b>
<b>Less: non current broodstock</b>	<b>(5,028)</b>	<b>(3,392)</b>
<b>Total current biological assets</b>	<b>6,831</b>	<b>4,948</b>

### Livestock

The Group operates a commercial and research farming and technology transfer business, and at 30 September 2016 held 3,269 (2015: 2,992) head of sheep, 447 (2015: 246) head of cattle, nil (2015: 27) pigs and 6,940 (2015: nil) hens. The Group had farming sales of £358,000 in the year ended 30 September 2016 (2015: £310,000).

The Group is exposed to financial risks arising from changes in the market value of farm animals. The Group does not anticipate that prices will decline significantly in the foreseeable future and, therefore, has not entered into derivative or other contracts to manage the risk of a decline in livestock price. The Group reviews its outlook for livestock prices regularly in considering the need for active financial risk management.

## 18 Biological assets (continued)

### Broodstock, eggs and fingerlings

	Salmon Broodstock £000	Salmon eggs £000	Salmon fingerlings £000	Lumpfish eggs and fingerlings £000	Tilapia £000	Total £000
Biological assets 1 October 2015	5,636	1,485	350	369	73	7,913
Increase due to production/ purchase	3,832	303	763	483	203	5,584
Due to physical changes	(2,879)	15,136	(221)	-	-	12,036
Foreign exchange movements	1,685	444	29	110	-	2,268
Reduction due to sales/ discarding of stock	-	(15,001)	(626)	(577)	(225)	(16,429)
Fair value adjustments	(690)	(3)	-	642	9	(42)
<b>Biological assets 30 September 2016</b>	<b>7,584</b>	<b>2,364</b>	<b>295</b>	<b>1,027</b>	<b>60</b>	<b>11,330</b>
<b>Broodstock, eggs and fingerlings — non current</b>	<b>5,028</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,028</b>
<b>Broodstock, eggs and fingerlings — current</b>	<b>2,556</b>	<b>2,364</b>	<b>295</b>	<b>1,027</b>	<b>60</b>	<b>6,302</b>
	<b>7,584</b>	<b>2,364</b>	<b>295</b>	<b>1,027</b>	<b>60</b>	<b>11,330</b>

### Assumptions used for determining fair value of broodstock, eggs and fingerlings

IAS41 requires that biological assets are accounted for at the estimated fair value net of selling and harvesting costs. Fair value is measured in accordance with IFRS13 and is categorised into level 3 in the fair value hierarchy as the inputs include unobservable inputs in the valuation of broodstock, eggs and fingerlings for which there are no published market data available.

The calculation of the estimated fair value of salmon broodstock is primarily based upon its main harvest output being salmon eggs, which are priced upon our current seasonally adjusted selling prices for salmon eggs. These prices are reduced for harvesting costs, freight costs, incubation costs and market capacity to arrive at the net value of broodstock. The valuation also reflects the internally generated data to arrive at the biomass. This includes the weight of the broodstock, the yield that each kilogram of fish will produce and mortality rates. The fish take approximately four years to reach maturity, and so the fair value of the age and biomass of the fish is reflected in a discount to the gross biomass to reflect the progress to maturity.

The calculation of the fair value of the salmon eggs is based upon the current seasonally adjusted selling prices for salmon eggs less transport and incubation costs, and taking account of the market capacity. The valuation also takes account of the mortality rates of the eggs and expected life as sourced from internally generated data.

The calculation of the fair value of the salmon and lumpfish fingerlings is valued on current selling prices less transport costs. Internally generated data is used to incorporate mortality rates and the weight of the fish.

The lumpfish eggs are valued at cost. Internally generated data is used to calculate mortality rates.

The valuation models by their nature are based upon uncertain assumptions on sales prices, market capacity, weight, mortality rates, yields and assessment of the discounts to reflect the stages of maturity. The Group has a degree of expertise in these assumptions but these assumptions are subject to change. Relatively small changes in assumptions would have a significant impact on the valuation. A 1% increase/decrease in assumed selling price would increase/decrease the fair value of biological assets by £119,000.



**18 Biological assets (continued)**

Total quantities held at 30 September were:

	2016	2015
Salmon broodstock and fingerlings	557 tonnes	452 tonnes
Lumpfish fingerlings	1.5m units	1.4m units
Salmon eggs	23.6m units	16.5m units

The Company did not hold any biological assets at the year end (2015: £nil).

**19 Trade and other receivables**

Group	2016 £000	2015 £000
Trade receivables	32,133	10,560
Less: provision for impairment of trade receivables	(2,130)	(279)
Trade receivables — net	30,003	10,281
<b>Total financial assets other than cash and cash equivalents classified as loans and receivables</b>	<b>30,003</b>	<b>10,281</b>
Prepayments	1,672	2,873
Other receivables	2,613	2,492
<b>Total trade and other receivables</b>	<b>34,288</b>	<b>15,646</b>
Less: non-current portion: prepayments	-	(293)
<b>Current portion</b>	<b>34,288</b>	<b>15,353</b>

All non-current receivables are due within five years from the end of the reporting period.

The fair values of trade and other receivables classified as loans and receivables are not materially different to their carrying values. As at 30 September 2016 trade receivables of £6,979,000 (2015: £3,340,000) were past due but not impaired. They relate to customers with no default history. The ageing analysis of these receivables is as follows:

	2016 £000	2015 £000
Up to 3 months overdue	5,253	1,827
3 to 6 months overdue	1,139	606
6 to 12 months overdue	587	907
	<b>6,979</b>	<b>3,340</b>

Movements on the Group provision for impairment of trade receivables are as follows:

	2016 £000	2015 £000
At 1 October	279	63
Assumed in a business combination	1,831	-
Provided during the year	291	247
Receivable written off during the year as uncollectable	(271)	(31)
At 30 September	<b>2,130</b>	<b>279</b>

The movement on the provision for impaired receivables has been included in the administrative expenses line in the consolidated income statement.

Other classes of financial assets included within trade and other receivables do not contain impaired assets.

## 19 Trade and other receivables (continued)

Company	2016 £000	2015 £000
Receivables from related parties	93,879	61,075
Loan provided to subsidiary company	7,243	8,902
<b>Total financial assets other than cash and cash equivalents classified as loans and receivables</b>	<b>101,122</b>	<b>69,977</b>
Prepayments	218	142
Other receivables	149	161
<b>Total trade and other receivables</b>	<b>101,489</b>	<b>70,280</b>
Less: non-current portion	-	-
<b>Current portion</b>	<b>101,489</b>	<b>70,280</b>

## 20 Trade and other payables

Group	2016 £000	2015 £000
Trade payables	14,172	4,319
Other payables	6,857	2,910
Accruals	5,239	3,837
<b>Financial liabilities, excluding loans and borrowings, classified as financial liabilities measured at amortised cost</b>	<b>26,268</b>	<b>11,066</b>
Other payables — contingent consideration	10,220	16,296
<b>Financial liabilities, excluding loans and borrowings, classified as financial liabilities at fair value through profit or loss</b>	<b>10,220</b>	<b>16,296</b>
Other payables — tax and social security payments	593	477
Deferred income	2,976	3,859
<b>Total trade and other payables</b>	<b>40,057</b>	<b>31,698</b>
Less: non-current portion of other payables — contingent consideration	(8,825)	(7,330)
<b>Current portion</b>	<b>31,232</b>	<b>24,368</b>

Book values approximate to fair value at 30 September 2016 and 2015.

The financial liability at fair value through profit and loss relates to contingent consideration outstanding from business combinations. The majority of this relates to deferred cash consideration dependent on the performance of the acquired businesses and the fair value is derived from the likely liabilities based on current performance against the targets at each reporting date. Also included in contingent consideration is a put/call agreement exercisable and payable in 2022 to acquire the remaining 20% stake in Akvaforsk Genetics Center Inc for a sum determined by future performance. The minimum consideration is NOK 1 (one Krone) payable in the event the business under performs the minimum target set and the maximum consideration is capped at NOK 60m. If Akvaforsk Genetics Center Inc achieves the projections provided by the vendors, payment will be NOK 10m and this assumption has been used in calculating the fair value of the liability.

**20 Trade and other payables (continued)**

Company	2016 £000	2015 £000
Trade payables	1,336	164
Payables to related parties	23,517	4,355
Accruals	1,063	991
<b>Total financial liabilities, excluding loans and borrowings, classified as financial liabilities measured at amortised cost</b>	<b>25,916</b>	<b>5,510</b>
Other payables — contingent consideration	82	3,351
<b>Financial liabilities, excluding loans and borrowings, classified as financial liabilities at fair value through profit or loss</b>	<b>82</b>	<b>3,351</b>
Other payables — tax and social security payments	104	32
<b>Total trade and other payables</b>	<b>26,102</b>	<b>8,893</b>
Less: non-current portion of other payables — contingent consideration	-	(351)
<b>Current portion</b>	<b>26,102</b>	<b>8,542</b>

Book values approximate to fair value at 30 September 2016 and 2015.

**21 Loans and borrowings**

Group	2016 £000	2015 £000
<b>Non-Current</b>		
Bank borrowings	37,133	-
Other loans	60	60
Finance lease creditor (note 27)	214	33
	<b>37,407</b>	<b>93</b>
<b>Current</b>		
Finance lease creditor (note 27)	289	63
	<b>289</b>	<b>63</b>
<b>Total loans and borrowings</b>	<b>37,696</b>	<b>156</b>

The fair value of loans and borrowings is not materially different to the carrying value and has not been separately disclosed.

On 30 December 2015, the Group completed the acquisition of the Inve Aquaculture Group and on the same day entered into new borrowing facilities consisting of a five-year revolving credit facility of up to \$70,000,000 secured on the assets of the parent company, UK subsidiary companies and certain overseas subsidiary companies. At 30 September 2016, \$50,000,000 was drawn down on the facility. The interest rate on the facility is between 1.9% and 2.5% above LIBOR depending on leverage. The finance lease liabilities are secured on the assets to which they relate.

## 21 Loans and borrowings (continued)

The currency profile of the Group's loans and borrowings is as follows:

	2016 £000	2015 £000
Sterling	97	156
US Dollar	37,133	-
Euro	456	-
Thai Baht	10	-
	37,696	156

### Company

The book value and fair value of loans and borrowings are as follows:

	2016 £000	2015 £000
<b>Non-Current</b>		
Bank borrowings	37,133	-
Other loans	60	60
<b>Total loans and borrowings</b>	<b>37,193</b>	<b>60</b>

The fair value of loans and borrowings is not materially different to the carrying value and has not been separately disclosed.

The currency profile of the Company's loans and borrowings is as follows:

	2016 £000	2015 £000
Sterling	60	60
US Dollar	37,133	-
	37,193	60

## 22 Provisions

	Legal fees provision £000	Repairs provision £000	Other provisions £000	Total £000
At 1 October 2014	300	30	750	1,080
Charged to profit or loss	201	-	52	253
Utilised in year	(300)	-	-	(300)
At 1 October 2015	201	30	802	1,033
Assumed in a business combination	-	-	291	291
Charged to profit or loss	349	40	107	496
Foreign exchange movement	-	-	63	63
Utilised in year	(88)	-	(709)	(797)
At 30 September 2016	462	70	554	1,086
Current	462	70	554	1,086
Non-current	-	-	-	-
At 30 September 2016	462	70	554	1,086
Current	201	30	802	1,033
Non-current	-	-	-	-
At 30 September 2015	201	30	802	1,033

### Legal fees provision

The legal fees provision relates to potential costs the Group may be liable for should it not succeed with an appeal made against an adverse court ruling on a legal action it took against a third party in relation to intellectual property matters. Management believes the provision held to be adequate to defend this claim and expect conclusion to the matter in the next 12 months.

### Repairs provision

Under property operating lease agreements, FAI Farms Limited, a subsidiary company, has a rolling obligation to maintain all properties to the standard that prevailed at the inception of the lease. The Directors estimate the costs of this obligation at £15,000 (2015: £15,000). Additionally, Benchmark Vaccines Limited has a repairs provision of £55,000 (2015: £15,000) in respect of its Braintree premises.

### Other provisions

During the year provisions of a further £107,000 were made and amounts of £709,000 were utilised to total £200,000 (2015: £802,000) in relation to potential rebates to customers/distributors based on targeted volumes, price fluctuations and potential stock returns under right of return clauses. The Directors expect these to be settled in the financial year ended 30 September 2017.

A provision with a fair value of £291,000 was acquired with INVE in relation to an overseas customs duty dispute. Since then, the balance has been increased to £354,000 due to being retranslated at the year end foreign exchange rate. The directors believe this provision to be adequate and that the matter should be resolved in the next 12 months.

No provisions were held by the Company at the year end (2015: £nil).

## 23 Deferred tax

Deferred tax is calculated in full on temporary differences under the liability method using the substantively enacted rates in the relevant territories in which the temporary differences and tax losses are expected to reverse.

The movement on the deferred tax account is as shown below:

Group	2016 £000	2015 £000
At 1 October	(8,224)	339
Acquired during the year	(50,106)	(9,748)
<i>Recognised in income statement</i>		
Tax credit (note 11)	4,040	458
Exchange differences	(8,676)	631
<i>Recognised in equity</i>	(295)	96
At 30 September	(63,261)	(8,224)

Company	2016 £000	2015 £000
At 1 October	170	47
<i>Recognised in income statement</i>		
Tax (expense)/credit	(127)	119
<i>Recognised in equity</i>	(43)	4
At 30 September	-	170

There was no deferred tax recognised in other comprehensive income.

Deferred tax assets have been recognised in respect of all tax losses and other temporary differences giving rise to deferred tax assets where the Directors believe it is probable that these assets will be recovered. The Directors believe there is sufficient evidence that the amounts recognised will be recovered against future taxable profits. The Group did not recognise deferred tax assets of £5,535,000 (2015: £2,930,000) in respect of losses amounting to £21,903,000 (2015: £14,652,000) and temporary differences of £4,358,000 (2015: £nil), where there was insufficient evidence that the amounts will be recovered.

No deferred tax is recognised on the unremitted earnings of overseas subsidiaries and joint ventures. As the earnings are continually reinvested by the Group and there is no intention for these entities to pay dividends, no tax is expected to be payable on them in the foreseeable future.

The movements in deferred tax assets and liabilities (prior to the offsetting of balances within the same jurisdiction as permitted by IAS 12) during the period, together with amounts recognised in the consolidated income statement and amounts recognised in other comprehensive income are as follows:

	Asset 2016 £000	Liability 2016 £000	Net 2016 £000	(Charged)/ credited to profit or loss 2016 £000	(Charged)/ credited to equity 2016 £000
Group					
Accelerated capital allowances	-	(62,748)	(62,748)	(3,118)	-
Other temporary and deductible differences	-	(800)	(800)	(1,149)	-
Available losses	287	-	287	225	-
Fair value of share options	-	-	-	2	295
Net tax assets /(liabilities)	287	(63,548)	(63,261)	(4,040)	295

## 23 Deferred tax (continued)

Group	Asset 2015 £000	Liability 2015 £000	Net 2015 £000	(Charged)/ credited to profit or loss 2015 £000	(Charged)/ credited to equity 2015 £000
Accelerated capital allowances	-	(8,932)	(8,932)	243	-
Other temporary and deductible differences	349	-	349	289	-
Available losses	62	-	62	(74)	-
Fair value of share options	297	-	297	-	96
Net tax assets /(liabilities)	708	(8,932)	(8,224)	458	96

Company	Asset 2016 £000	Liability 2016 £000	Net 2016 £000	(Charged)/ credited to profit or loss 2016 £000	(Charged)/ credited to equity 2016 £000
Accelerated capital allowances	-	-	-	3	-
Other temporary and deductible differences	-	-	-	(130)	-
Available losses	-	-	-	-	-
Fair value of share options	-	-	-	-	(43)
Net tax assets /(liabilities)	-	-	-	(127)	(43)

Company	Asset 2015 £000	Liability 2015 £000	Net 2015 £000	(Charged)/ credited to profit or loss 2015 £000	(Charged)/ credited to equity 2015 £000
Accelerated capital allowances	-	(3)	(3)	1	-
Other temporary and deductible differences	130	-	130	118	-
Available losses	-	-	-	-	-
Fair value of share options	43	-	43	-	4
Net tax assets /(liabilities)	173	(3)	170	119	4

## 24 Share capital and share premium

Allotted, called up and fully paid	Number	Share Capital £000	Share premium £000
<b>Ordinary shares of 0.1 penny each</b>			
Balance at 30 September 2014	136,977,095	137	26,903
Shares issued to fund the acquisition of Salmobreed and Stofnfiskur	82,353,000	82	69,918
Share issue costs recognised through equity	-	-	(2,149)
Exercise of share options	19,430	-	-
<b>Balance at 30 September 2015</b>	<b>219,349,525</b>	<b>219</b>	<b>94,672</b>
Shares placed to fund the acquisition of INVE	215,922,141	216	185,477
Shares issued as consideration for the acquisition of INVE	38,635,671	39	33,188
Exercise of share options	50,742	-	-
Shares issued to management	110,873	-	95
Placing shares to fund investments in joint ventures and capital projects	47,279,127	47	30,684
Share issue costs recognised through equity	-	-	(4,685)
<b>Balance at 30 September 2016</b>	<b>521,348,079</b>	<b>521</b>	<b>339,431</b>

On 19 December 2014, the Company issued 82,353,000 shares of 0.1p each at a price of 85p per share to fund the acquisition of the entire share capital of Salmobreed AS and 89.45 per cent of the issued share capital of Stofnfiskur HF.

On 30 December 2015, the Company issued 215,922,141 shares of 0.1p each at a price of 86p per share to fund the acquisition of INVE Aquaculture Holdings B.V. In addition, on 31 December 2015, the Company issued 38,635,671 shares of 0.1p each at 86p as part consideration for the acquisition. Non-recurring costs of £4.4 million were incurred in relation to the share placing and this has been charged to the share premium account.

On 2 March 2016, the Company issued a total of 50,742 shares of 0.1p each to 6 employees of the Group relating to share options granted in August 2013 and March 2015.

On 20 April 2016, the Company issued a total of 110,873 shares of 0.1p each at a price of 86p per share to certain managers of INVE Aquaculture Holdings B.V.

On 4 August 2016, the Company placed 47,279,127 shares of 0.1p each at a price of 65p per share to fund investment in certain strategic joint ventures and capital projects. Non-recurring costs of £0.2 million were incurred in relation to the share placing and this has been charged to the share premium account.

### Employee share option scheme

The Company introduced an employee share option scheme in 2010. The options existing immediately before admission to trading on AIM on 18 December 2013 were subdivided into equivalent options over the new 0.1p ordinary shares. At the year end, options exist over 5,257,431 (2015: 2,401,186) 0.1p ordinary shares in the Company and the exercise price is the nominal value of 0.1p per share. Movements in the share options are disclosed in note 30.

Members of the scheme can exercise the options at any point from the third anniversary of the option grant date until the options lapse on the tenth anniversary of the option grant date. Options cannot be exercised after the option holder ceases to hold employment with any member of the Group.



## 25 Reserves

The following describes the nature and purpose of each reserve within equity:

Reserve	Description and purpose
Share premium reserve	Amount subscribed for share capital in excess of nominal value.
Capital redemption reserve	Amounts transferred from share capital on redemption of issued shares.
Foreign exchange reserve	Gains/losses arising on retranslating the net assets of overseas operations into sterling.
Retained earnings	All other net gains and losses and transactions with owners (e.g. dividends) not recognised elsewhere. To simplify presentation, the share-based payment reserve has been combined with the retained earnings reserve in the current period. The share-based payment reserve recognised the value of equity-settled share-based payment transactions provided to employees, including management personnel, as part of their remuneration. Refer to note 30 for further details of these plans.

## 26 Trading and Investing Activities

The Group separates its operations into Trading Activities and Investing Activities in order to report the performance of its business. Trading Activities are those operations which generate earnings in the current period. Investing Activities are those activities which have no associated income stream in the current period, but which are intended to provide the Group with income generating operations in future periods. These measures are used by management for planning and reporting purposes and in discussions with and presentations to investment analysts and are defined below. These measures are not defined in International Financial Reporting Standards and may not be comparable with similarly described measures used by other companies.

In arriving at Trading Activities, the following Investing Activities are excluded from reported results:

- exceptional costs of a non-recurring nature
- costs of acquiring new businesses outlined in note 31
- pre-operational expenses for new ventures
- expenditure on research and development

## 26 Trading and Investing Activities (continued)

A reconciliation of reported earnings to earnings from Trading Activities is shown below.

### Reconciliation of Reported Earnings to Earnings from Trading Activities — year ended 30 September 2016

	Year ended 30 September 2016 £000	Investing Activities				Trading Activities £000
		Exceptional Items £000	Acquisition related costs £000	Pre- operational expenses for new ventures £000	R&D expenditure £000	
Revenue	109,375	-	-	-	-	109,375
Cost of sales	(58,562)	-	-	-	-	(58,562)
Gross profit	50,813	-	-	-	-	50,813
Operating costs	(54,676)	146	12,945	1,363	11,720	(28,502)
EBITDA	(3,863)	146	12,945	1,363	11,720	22,311
Depreciation	(2,859)	-	-	-	250	(2,609)
Amortisation	(13,749)	-	-	-	245	(13,504)
Operating (loss)/profit	(20,471)	146	12,945	1,363	12,215	6,198
Finance costs	(6,170)	-	-	-	-	(6,170)
Finance income	3,984	-	-	-	-	3,984
Share of profit of equity- accounted investees, net of tax	273	-	-	-	-	273
(Loss)/profit on ordinary activities before taxation	(22,384)	146	12,945	1,363	12,215	4,285
Tax on (loss)/profit on ordinary activities	4,038	-	-	-	(851)	3,187
(Loss)/profit for the period	(18,346)	146	12,945	1,363	11,364	7,472
(Loss)/earnings per share (pence)	(4.39)	0.03	3.10	0.33	2.72	1.79
Weighted average number of shares (thousands)	417,952	417,952	417,952	417,952	417,952	417,952

## 26 Trading and Investing Activities (continued)

### Reconciliation of Reported Earnings to Earnings from Trading Activities — year ended 30 September 2015

	Year ended 30 September 2015 £000	Investing Activities				
		Exceptional Items £000	Acquisition related costs £000	Pre- operational expenses for new ventures £000	R&D expenditure £000	Trading Activities £000
Revenue	44,199	-	-	-	-	44,199
Cost of sales	(28,102)	-	-	-	-	(28,102)
Gross profit	16,097	-	-	-	-	16,097
Operating costs	(23,328)	160	1,334	1,565	6,595	(13,674)
EBITDA	(7,231)	160	1,334	1,565	6,595	2,423
Depreciation	(1,304)	-	-	118	73	(1,113)
Amortisation	(3,064)	-	-	-	239	(2,825)
Operating (loss)/profit	(11,599)	160	1,334	1,683	6,907	(1,515)
Finance costs	(34)	-	-	-	-	(34)
Finance income	274	-	-	(2)	(12)	260
Loss on ordinary activities before taxation	(11,359)	160	1,334	1,681	6,895	(1,289)
Tax on loss on ordinary activities	(396)	-	-	(4)	(351)	(751)
(Loss)/profit for the period	(11,755)	160	1,334	1,677	6,544	(2,040)
Loss per share (pence)	(5.96)	0.08	0.66	0.83	3.26	(1.13)
Weighted average number of shares (thousands)	201,280	201,280	201,280	201,280	201,280	201,280

## 27 Leases

### Finance leases

The Group leases plant and machinery with a carrying value of £558,000 (2015: £196,000). Such assets are generally classified as finance leases as the rental period amounts to the estimated useful economic life of the assets concerned and often the Group has the right to purchase the assets outright at the end of the minimum lease term by paying a nominal amount.

Future lease payments are due as follows:

	Minimum lease payments 2016 £000	Interest 2016 £000	Present value 2016 £000
Not later than one year	294	5	289
Later than one year and not later than five years	215	1	214
Later than five years	-	-	-
	509	6	503

## 27 Leases (continued)

	Minimum lease payments 2015 £000	Interest 2015 £000	Present value 2015 £000
Not later than one year	66	3	63
Later than one year and not later than five years	37	4	33
Later than five years	-	-	-
	103	7	96

The present values of future lease payments are analysed as:

	2016 £000	2015 £000
Current liabilities	289	63
Non-current liabilities	214	33
	503	96

### Operating leases — lessee

The Group has entered into commercial leases on certain items of land and buildings. These leases have an average life of greater than five years. There are no restrictions placed on the Group by entering into these leases.

The total future value of minimum lease payments under non-cancellable operating leases for land and buildings are as follows:

	2016 £000	2015 £000
Not later than one year	1,765	683
Later than one year and not later than five years	4,122	1,526
Later than five years	2,825	2,471
	8,712	4,680

## 28 Retirement benefits

The Group operates a defined contribution pension scheme. The assets of the scheme are held separately from those of the Group in an independently administered fund. The pension cost represents contributions payable by the Group and amounted to £1,079,000 (2015: £479,000). Contributions totalling £306,200 (2015: £100,200) were payable to the fund at the balance sheet date and are included in other payables.

## 29 Capital commitments

At 30 September 2016 the Group and Company had capital commitments as follows:

	Group 2016 £000	Group 2015 £000	Company 2016 £000	Company 2015 £000
Contracted for but not provided within these financial statements	4,833	6,672	-	-

### 30 Share-based payment

#### Share options

The Group operates an EMI based equity settled share option scheme for certain employees. Options are exercisable at a price equal to the nominal value of the parent Company's shares. The vesting period is three years. If the options remain unexercised after a period of ten years from the date of grant the options expire. Options are forfeited if the employee leaves the Group before the options vest.

The share options under the scheme are as follows:

#### Year ended 30 September 2016:

Year	No. of options				As at 30 September 2016	Option Price*	Exercise Period
	As at 1 October 2015	Granted in 2016	Exercised in 2016	Forfeited in 2016			
2013	89,000	-	-	-	89,000	0.10p	August 2016 to July 2023
2013	1,183,000	-	(35,000)	(35,000)	1,113,000	0.10p	August 2016 to July 2023
2015	988,753	-	(15,742)	(108,108)	864,903	0.10p	March 2018 to February 2025
2015	140,433	-	-	(21,037)	119,396	0.10p	July 2018 to June 2025
2016	-	3,093,493	-	(22,361)	3,071,132	0.10p	March 2019 to February 2026

\* The option price is the nominal value of the parent Company's shares.

Of the total number of options outstanding at 30 September 2016, 1,202,000 (2015: nil) were exercisable.

Options exercised in 2016 resulted in 50,742 shares being issued at a weighted average price of 0.1p. The related weighted average share price at the time of exercise was 59.5p per share.

#### Year ended 30 September 2015:

Year	No. of options				As at 30 September 2015	Option Price*	Exercise Period
	As at 1 October 2014	Granted in 2015	Exercised in 2015	Forfeited in 2015			
2013	89,000	-	-	-	89,000	0.10p	August 2016 to July 2023
2013	1,193,000	-	(10,000)	-	1,183,000	0.10p	August 2016 to July 2023
2015	-	1,026,501	(9,430)	(28,318)	988,753	0.10p	March 2018 to February 2025
2015	-	140,433	-	-	140,433	0.10p	July 2018 to June 2025

\* The option price is the nominal value of the parent Company's shares.

Options exercised in 2015 resulted in 19,430 shares being issued at a weighted average price of 0.1p. The related weighted average share price at the time of exercise was 98p per share.

### 30 Share-based payment (continued)

#### Share options issued in August 2013

Share options outstanding at the year-end had a weighted average exercise price of 0.1p and a weighted average remaining contractual life of 7 years.

The fair value of the EMI equity settled share options granted is estimated at the date of grant using the Black Scholes Merton model taking into account the terms and conditions on which the options were granted. The expense recognised for these options during the year was £7,000 (2015: £8,000). This has been reflected in the income statement and included within Operating Costs — Trading Activities.

#### Additional share options issued in August 2013

Share options outstanding at the year-end had a weighted average exercise price of 0.1p and a weighted average remaining contractual life of 7 years. The fair value of the EMI equity settled share options granted is estimated at the date of grant using the Black Scholes Merton model taking into account the terms and conditions on which the options were granted.

The expense recognised for these options during the year was £93,000 (2015: £113,000). This has been reflected in the income statement and included within Operating Costs — Trading Activities.

Of the options issued in August 2013, 35,000 were exercised early in respect of good leavers.

#### Share options issued in March 2015 and July 2015

Share options outstanding at the year-end had a weighted average exercise price of 0.1p and a weighted average remaining contractual life of 9 years. The fair value of the EMI equity settled share options granted is estimated at the date of grant using the Black Scholes Merton model taking into account the terms and conditions on which the options were granted.

The expense recognised for these options during the year was £344,000 (2015: £337,000). This has been reflected in the income statement and included within Operating Costs — Trading Activities.

Of the options issued in March 2015, 15,742 were exercised early in respect of a good leavers.

#### Share options issued in March 2016

Share options outstanding at the year-end had a weighted average exercise price of 0.1p and a weighted average remaining contractual life of 9 years. The fair value of the EMI equity settled share options granted is estimated at the date of grant using the Black Scholes Merton model taking into account the terms and conditions on which the options were granted.

The expense recognised for these options during the year was £305,000 (2015: £nil). This has been reflected in the income statement and included within Operating Costs — Trading Activities.

#### Share warrants

In January 2015, the Company issued warrants to acquire 259,312 ordinary shares at 112p per share as part consideration for the acquisition of the Improve International Limited business and its subsidiaries. The exercise of these warrants is subject to the extension of certain contracts and the warrants are exercisable at any point between the extension of these contracts and six months thereafter.

The Group did not enter into any other share-based payment transactions with parties other than employees during the current or previous period.

The total charge reflected in the consolidated income statement in relation to all of the above share based transactions, and included within Operating Costs was £749,000 (2015: £458,000), all charged to Operating Costs — Trading Activities. The share-based payment expense comprises:

	2016 £000	2015 £000
Equity-settled schemes	749	458
Total share based payment charge	749	458

The total charge reflected in the Company's income statement was £149,000 (2015: £128,000), all charged to Operating Costs — Trading Activities (2015: all charged to Operating Costs — Trading Activities).

### 31 Business Combinations

During the year the following business combinations occurred:

On 30 December 2015, Benchmark Holdings plc completed the acquisition of 100% of INVE Aquaculture Holding B.V. ("INVE"), a leading specialist manufacturer of primary stage technically advanced nutrition and health products for aquaculture, for a total consideration of \$342 million (approximately £230.7 million).

The Directors identified a strong strategic rationale for the acquisition. INVE's leadership in speciality aquaculture nutrition market is complementary to Benchmark's position in genetics and health. The acquired business complements Benchmark's existing expertise and operations within aquaculture and the enlarged group will become a leading global provider of technology for sustainable food production, with a strong focus on the aquaculture sector, benefiting from immediate scale in advanced aquaculture nutrition and health products, enhanced sales, marketing and distribution network and the opportunity for cross selling and new product development. The acquisition created the Advanced Animal Nutrition Division.

In view of the size of the acquisition relative to the Group, the transaction was classified as a reverse takeover under the AIM rules. For accounting purposes, Benchmark Holdings plc has been identified as the acquirer and the transaction has been accounted for using the acquisition method. This is because Benchmark Holdings plc has obtained control over the operations of INVE as a result of the transaction.

Certain intangible assets have been separately identified and provisionally valued as shown in the table below. Related deferred tax has also been provided. The goodwill arising on the acquisition represents the synergies available from combining the two businesses, and the skills and technical talent of the INVE workforce.

On 11 August 2016, the group acquired control over aquaculture breeding programmes previously owned and operated by Centro de Investigación de la Acuicultura de Colombia Ceniagua through its wholly-owned subsidiary, Genética Spring S.A.S. ("Genética Spring") together with the related business, freehold land, buildings and assets, for a total consideration of \$2.17m (£1.67m). The acquisition added a third species, shrimp, to Benchmark's aquaculture breeding business in salmon and tilapia, and strengthened Benchmark's position in the fast-growing shrimp industry.

Details of the fair value of the consideration paid and assets and liabilities assumed during the year are shown in the table below:

	INVE Aquaculture Holdings B.V. £000	Genética Spring £000	Total £000
<b>Consideration</b>			
Cost of investment	230,667	1,673	232,340
<i>Satisfied by:</i>			
Cash	197,440	709	198,149
Deferred consideration	-	964	964
Equity	33,227	-	33,227
<b>Total consideration</b>	<b>230,667</b>	<b>1,673</b>	<b>232,340</b>
<b>Fair value of assets acquired</b>			
Customer list	4,789	-	4,789
Patents and trademarks	208	-	208
Intellectual property	117,019	-	117,019
Contracts and Licences	25,562	-	25,562
Genetic Materials and Breeding Nuclei	-	601	601
Deferred tax on intangibles	(50,106)	-	(50,106)
Fixed assets	5,017	1,072	6,089
Investments	350	-	350
Inventories	16,686	-	16,686
Trade and other receivables	14,914	-	14,914
Cash and cash equivalents	6,647	-	6,647
Trade and other payables	(10,104)	-	(10,104)
Tax and social security	(2,373)	-	(2,373)
Loans and borrowings	(570)	-	(570)
Provisions	(291)	-	(291)
<b>Total identifiable net assets</b>	<b>127,748</b>	<b>1,673</b>	<b>129,421</b>
<b>Goodwill</b>	<b>102,919</b>	<b>-</b>	<b>102,919</b>

## 31 Business Combinations (continued)

### Measurement of fair values

The valuation techniques used for measuring the fair value of material assets acquired were as follows.

Assets acquired	Valuation technique
Property, plant and equipment	Market comparison technique and cost technique: The valuation model considers quoted market prices for similar items when they are available, and depreciated replacement cost when appropriate. Depreciated replacement cost reflects adjustments for physical deterioration as well as functional and economic obsolescence.
Intangible assets	Relief-from-royalty method and multi-period excess earnings method: The relief-from-royalty method considers the discounted estimated royalty payments that are expected to be avoided as a result of the patents or trademarks being owned. The multi-period excess earnings method considers the present value of net cash flows expected to be generated by the customer relationships, by excluding any cash flows related to contributory assets.
Inventories	Market comparison technique: The fair value is determined based on the estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventories.
Other assets and liabilities	Management consider the fair value of other assets and liabilities to be equivalent to the purchase price, which was supported by an independent valuation.

The fair value of the ordinary shares issued was based on the listed share price of the Company at 30 December 2015 of £0.86 per share.

If new information obtained within one year of the date of acquisition about facts and circumstances that existed at the date of acquisition identifies adjustments to the above amounts, or any additional provisions that existed at the date of acquisition, then the accounting for the acquisition will be revised.

The Group incurred acquisition related costs of £9,504,000 in respect of INVE Aquaculture B.V. and £135,000 in respect of Genética Spring.

During the year INVE contributed £54,870,000 to the Group's revenue and increased EBITDA by £15,729,000 for the period. Genética Spring contributed £nil to the Group's revenue and decreased EBITDA by £61,000 for the period. The table below shows the Group's pro-forma revenue and EBITDA if the acquisitions had taken place at the start of the period.

	2016 £000	INVE Aquaculture Holdings B.V. £000	Genética Spring £000	Total £000
Revenue	109,375	14,200	-	123,575
EBITDA	(3,863)	2,300	-	(1,563)

## 32 Related party transactions

Transactions between the Company and its subsidiary undertakings (see note 16), which are related parties, amounted to £1,912,800 in the year (2015: £643,000). These transactions related to inter-company recharges. Balances with subsidiary undertakings are shown in notes 19 and 20. Details of transactions between the Group and other related parties are disclosed in the following note.

Included within trade and other payables due after more than one year are the following loans from related parties:

	Group 2016 £000	Group 2015 £000	Company 2016 £000	Company 2015 £000
Director	(60)	(60)	(60)	(60)
Total	(60)	(60)	(60)	(60)

The loan from Malcolm Pye, Chief Executive Officer, has no fixed repayment date.



### 32 Related party transactions

During the year, Group entities entered into the following trading transactions with related parties that are not members of the Group:

	Purchases	
	2016 £000	2015 £000
Benchmark Holdings Limited Executive Pension scheme	72	72

The following balances are payable at the end of the reporting period:

	2016 £000	2015 £000
Benchmark Holdings Limited Executive Pension scheme	20	11

The Company is controlled by the shareholders. There is no single controlling party.

### 33 Contingent liabilities

There is a full cross guarantee in respect of borrowings of other Group undertakings. Total borrowings of other Group undertakings at 30 September 2016 were £3,559,000 (2015: £408,000).

### 34 Notes supporting statement of cash flows

Cash and cash equivalents for purposes of the statement of cash flows comprises:

Group	2016 £000	2015 £000
Cash at bank and in hand	38,140	13,564
<b>Cash and cash equivalents</b>	<b>38,140</b>	<b>13,564</b>
<b>Company</b>		
Cash at bank and in hand	27,480	5,542
<b>Cash and cash equivalents</b>	<b>27,480</b>	<b>5,542</b>

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## GLOSSARY

<b>3Es</b>	Environment, Ethics & Economics — Benchmark's framework for sustainability	<b>IP</b>	Intellectual Property
<b>Adjusted EBITDA</b>	EBITDA before exceptional and acquisition costs	<b>IPO</b>	Initial Public Offering
<b>AGM</b>	Annual General Meeting	<b>LTIP</b>	Long-term Incentive Plan
<b>AIM</b>	Alternative Investment Market	<b>M&amp;A</b>	Mergers & Acquisitions
<b>API</b>	Active Pharmaceutical Ingredient	<b>PD</b>	Pancreas Disease
<b>CAGR</b>	Compound Annual Growth Rate	<b>QCA Code</b>	Quoted Companies Alliance Code — outlining best practice for quoted companies
<b>CEO</b>	Chief Executive Officer	<b>qPCR</b>	Quantitative polymerase chain reaction — a diagnostic tool
<b>CFO</b>	Chief Financial Officer	<b>QTL</b>	Quantitative Trait Loci — DNA containing/linked to genes that underlie a quantitative trait
<b>CGU</b>	Cash Generating Unit	<b>R&amp;D</b>	Research & Development
<b>COO</b>	Chief Operating Officer	<b>SalmoBreed Salten</b>	Benchmark's new land-based salmon egg and broodstock production facility currently under construction
<b>CPD</b>	Continuing Professional Development	<b>Salmosan®</b>	Benchmark's market-leading sea lice treatment
<b>Defra</b>	Department for Environment, Food and Rural Affairs	<b>SIP</b>	Share Incentive Plan
<b>EBITDA</b>	Earnings before interest, tax, depreciation and amortisation	<b>STM</b>	Science, technical and medical — referring to the publishing market
<b>EMI scheme</b>	Enterprise Management Incentive scheme	<b>Trading Activities</b>	Trading Activities are those operations which generate earnings in the current period excluding Investing Activities
<b>EU GMP</b>	EU Good Manufacturing Practice	<b>Trading EBITDA</b>	EBITDA from Trading Activities
<b>FAO</b>	Food and Agriculture Organisation	<b>VLP</b>	Virus Like Particle. VLPs do not contain any viral genetic material and can offer a safer alternative to live-attenuated or inactivated vaccines. Several first-generation VLP approaches have yielded successful vaccines for humans
<b>FAWC</b>	Farm Animal Welfare Committee		
<b>FCR</b>	Feed Conversion Ratio		
<b>FY</b>	Financial Year		
<b>Genomic Selection</b>	Targeted breeding by selecting individuals based on their genome		
<b>Histopathology</b>	Diagnosis and study of disease		
<b>HypoCat™</b>	A breakthrough vaccine for cats which neutralises the primary cause of human allergic reaction to cats		
<b>IFRS</b>	International Financial Reporting Standards		
<b>Investing Activities</b>	Investing Activities are those activities which have no associated income stream in the current period, but which are intended to provide the Group with income generating operations in future periods. Includes exceptional items, research and development expenditure, pre-operational expenses for new ventures and costs of acquiring new businesses		

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**Information regarding forward-looking statements**

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to, statements regarding the Company's intentions, beliefs or current expectations concerning, among other things, its business, results of operations, financial position, prospects, growth, product pipeline, strategies and the industry in which it operates. By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances and are not guarantees of future performance. The actual results may differ materially from those described in, or suggested by, the forward-looking statements contained in this document. Any forward-looking statements in this document

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Benchmark is securing  
a position at the heart  
of the blue revolution —  
driving shareholder value  
as the industry grows  
and professionalises.

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