



# Annual Report 2018



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This year marks the 60<sup>th</sup> year of IFFO as a knowledge centre focused on interacting with international organisations, local governments and academic institutions, filling the information gaps through research and partnerships and sharing expertise on market trends and innovations with our members. Through these years the organisation has become the most respected and recognized voice representing the Marine Ingredients Industry around the world.

The IFFO family has been continuously expanding throughout the years and has neither geographical nor technical boundaries when it comes to promoting the use of natural and assured fishmeal and fish oil. This is reflected in IFFO's mindset as an organisation which is open to embracing new challenges and considering new issues which can be relevant to help the industry move forward meeting new developments and demands in the global food production system.

**Eduardo Goycoolea**  
IFFO President

# IFFO's role & vision



The Marine Ingredients industry, and IFFO in particular, can be proud of the way its work underpins and contributes to several of the United Nations' Sustainable Development Goals (SDGs), as member states, intergovernmental organisations as well as the private sector are working on delivering these goals by 2030.

With the industry's responsibly sourced raw materials for fishmeal and fish oil, the high level of certification and unmatched nutritional performance, fishmeal and fish oil provide steady commercial raw material volumes to the feed industry and represent a strategic basis for growth in aquaculture.

While novel ingredients are entering the market, marine ingredients are still very well positioned as feed ingredients. The role of IFFO is to share evidence with all its stakeholders so that the positioning of the marine ingredients industry in this new landscape is understood. Through IFFO's technical research projects, new swathes of the industry are being investigated to provide information where it is missing and to find alternative solutions when regulations change.

I firmly believe that IFFO's role is to accompany change and tackle new challenges so that marine ingredients continue to feed a growing population while ensuring food security. This should be achieved through a stronger collaboration with stakeholders, from IFFO members to local governments, local institutions, academics and NGOs.

IFFO remains very attractive, with 235 members from all over the world\* and increasing partnerships with highly recognised organisations. Thanks to all of them, we are building a new vision which positions the marine ingredients industry as a vital part in the global food production system. We want to continue to invest in people, in data and in innovation and have already achieved a lot in 2018. This is the story we want to tell you in the next pages...

## Petter Martin Johannessen

Director General

\* as of 31.12.2018



members from



countries



IFFO presentations at external events



events organised by IFFO



countries covered in the market reports



press interviews



opinion editorials

# 2018 achievements

## Technical update

The IFFO technical project portfolio is continually expanding and in Washington, a suite of new projects was signed off by the IFFO board to generate more evidence and inform business decisions for IFFO and its members.

The information being delivered through IFFO's technical projects continues to support the industry in the face of continual regulatory change around the world. It is also central to providing evidence-based information on the sustainability of raw material supply and the nutritional quality of its products.

## IFFO's input on regulation

IFFO Technical has been very active in relation to regulations around the world. Key activities include working with EU regulations on feed additives (antioxidants), and the legal requirements for fish oil for direct human consumption.

In China work on fish oil standards has been important, as was the delivery of a technical workshop on fishmeal supply chain integrity in Changsha. Work through Codex included the nutrient reference value for EPA and DHA, comments on proposals for MCDPEs and GEs in refined oils, and the further development of the fish oil standard.



# 2018 achievements

## Research



**Driving change in South East Asian trawl fisheries, fishmeal supply and aquafeed.** At the end of 2018, Duncan Leadbitter delivered the draft final report of the first overarching study that looks at the SE Asian fishmeal industry, and its main sources of raw material supply, particularly across Thailand and Vietnam. Through this study which was co-funded with IFFO by the Global Aquaculture Alliance, IFFO, as a global organisation, has made a significant contribution to help fill information gaps and support the development of best practice in regional fisheries management. The report makes a number of recommendations in encouraging the attainment of IFFO RS via the Improver Programme, the role of FIPs (Fisheries Improvement Programmes) in general, and maintaining an understanding of the developments in fisheries management in the region. It highlights the importance of collaboration in making positive change.

In partnership with:  **Global Aquaculture Alliance**



**Bulk Fishmeal Stability Trial: Providing data to amend the IMSBC code for bulk shipping.** In 2018, IFFO has successfully provided information that has helped to amend specific clauses in the International Maritime Organisation (IMO)'s International Maritime Dangerous Goods (IMDG) code, relevant to packaged goods. This provided information for the stabilization of fishmeal using tocopherol-based antioxidants (250 ppm of residual levels at the time of consignment) and reduced levels of ethoxyquin (50 ppm instead of 100 ppm) at the of consignment, may be used on a voluntary basis from the 1<sup>st</sup> January 2019, and comes into the IMDG Code from 1<sup>st</sup> January 2020. This project takes that work further forward to look at the stabilisation of bulk cargoes with the same antioxidant specifications, and is hoped to deliver a report to the IMO for review at the September 2019 meeting.



**When does fishing forage species affect their predators?** Prof. Ray Hilborn delivered a paper from within this project entitled "When does fishing forage species affect their predators?", underlining that high-density locations of forage fish may be more important to predators than total population biomass. The authors also found that there is no strong link between larger forage fish populations and increases in predator populations and state that previous studies of forage fish impacts on predators ignore the unpredictable nature of forage fish. The study also shows that fisheries and predators target different size forage fish. This is going to be important information for fisheries management, and will inform the evidence base for discussions on stock quotas in the future. There will be more papers to come from Ray Hilborn and his team over 2019 and 2020. This work is potentially important in providing more accurate harvest models for forage fish stocks.

# 2018 achievements

## Market research: an evidence-based approach

In 2018, IFFO continued its commitment to provide independent market information to its membership, aware as we are of the fact that members need reliable facts and figures in their day-to-day decision-making process. Various channels of dissemination are used to circulate analyses and data such reports, presentations and infographics.



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### Data mining

IFFO's members represent more than 50% of the total world production and between 75% and 80% of the total annual trade worldwide. Such extensive network of companies provides us with a constant and reliable flow of data on production, trade and prices, in addition to immediate updates on events potentially affecting the industry's performance around the globe.

**Close working relationships with various international bodies and governmental departments** (such as the UN FAO; the China Fishery Society and the Chinese network of ports; the USA National Oceanic and Atmospheric Administration; the Faroese Fishery Department) enable IFFO to gain access to otherwise unavailable information and update our readers on the local quotas' fulfilment. IFFO teams also draw on second-hand sources that gather and trade information in return for a subscription or a fee, centralising and thus diluting the cost of such data for our members. Prices of farmed animals or agri-commodities fall in this category.

**In 2018, production and/or trade annual data for 77 countries were collected;** monthly data for 11 countries and weekly data for around 8 countries. These data were used to produce 52 weekly reports (in English, Spanish and Chinese) and 12 monthly reports. In addition 10 monthly China Market Outlook reports were issued, plus a Statistical Yearbook with information on marine ingredients, agri-commodities and animal farming worldwide.

With the latest data purchases from Global Trade Atlas **we are now capable of reporting trade statistics of fishmeal and fish oil for the following 50 countries and regions:** Argentina, Australia, Belgium-Lux, Brazil, Canada, Chile, China, Colombia, Denmark, Egypt, France, Georgia, Germany, Greece, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Japan, Kazakhstan, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Peru, Philippines, Russia, South Korea, South Africa, Saudi Arabia, Senegal, Spain, Switzerland, Taiwan, Thailand, Total, Turkey, U.K, U.S.A, Ukraine, Uruguay, Vietnam.



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# 2018 achievements

## Presentations

In 2018, the department of market intelligence prepared and gave several presentations to different audiences on the latest global trends in the fishmeal and fish oil markets. The new data collected are always presented first to the IFFO members during our recurrent Members' Meetings and Annual Conferences. What makes such presentations unique is the fact that on one hand they provide the only thorough investigation on the global production, country by country, for the previous year; on the other hand they offer a projection of what people familiar with the industry expect in terms of production for the months ahead.

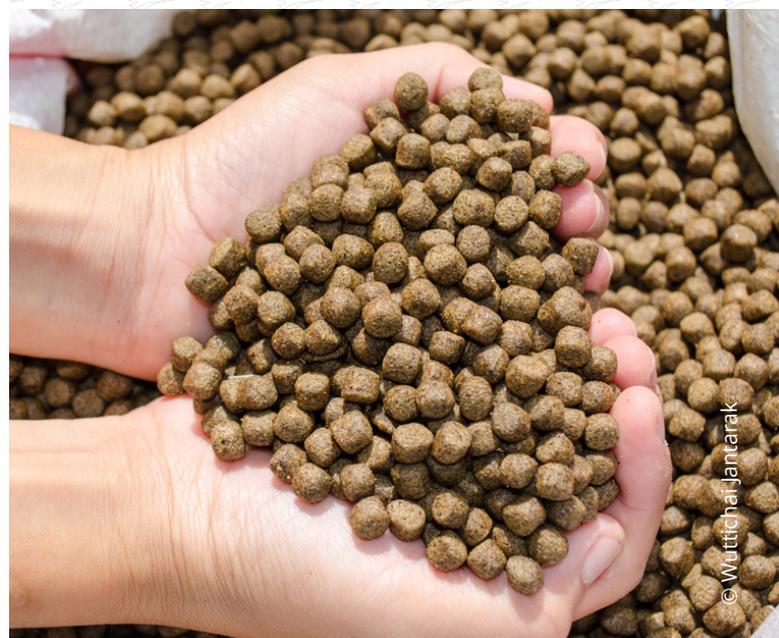
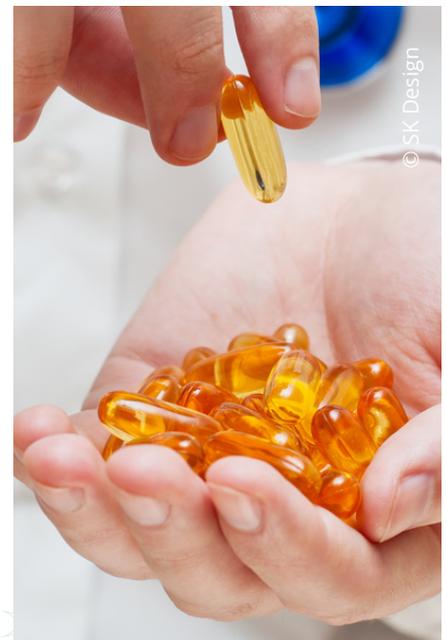
## Ad hoc queries

Around 50 individual requests for data and market analyses were received in 2018, some of which asked for a full replica of the IFFO database on monthly and/or annual production by country. Three members also asked for a series of conference calls in which the IFFO's reports and data collection process could be explained to their market analysis teams.

## Scientific papers

A scientific paper called "Global sustainability of fishmeal and fish oil under contrasting climate and socio-economic scenarios" was submitted to the Global Environmental Change journal, a peer-reviewed international journal publishing high quality, theoretically and empirically rigorous articles, and aiming at advancing knowledge about the human and policy dimensions of global environmental change. IFFO has been involved in this project as an external consultant and has also been asked to provide some historical data on production and prices. The paper highlights how a responsible management of the reduction fisheries will help smooth the impact of the expected global warming in terms of supply and price fluctuations.

The paper is co-authored by IFFO and by academics from the University of Plymouth (United Kingdom); the Institut de Recherche et Développement, in Sète (France); AZTI, Herrera Kaia, in Pasaia (Spain); and from the UN FAO in Rome (Italy).



# 2018 achievements

## Stakeholder engagement

Beyond IFFO members, key stakeholders include non-members, academia, regulatory bodies, governments, NGO's and industry press. IFFO constantly liaise with press to shape discussions and publicise project works. In 2018 IFFO organised 6 events and co-hosted one, allowing for knowledge sharing and networking. Finally, IFFO worked on multiple levels to engage with industry regulatory bodies, governments and NGOs to guide discussions and ensure members and industry are fairly represented.



### IFFO Events

**Miami's Members' Meeting** was attended by 150 delegates from 25 countries. Discussions and presentations covered updates on supply and market trends of marine ingredients. Other presentations focused on soy and the growing need for dense protein packages as well as on the latest market developments for fish oil and included an Omega-3 market update.

IFFO's pinnacle event in 2018 was the **58<sup>th</sup> Annual Conference**, held in Rome. The conference was attended by almost 450 delegates from 45 countries and included almost 50 presentations from leading industry scientists, case studies on countries and specific industries and analyses of latest market trends.

In China, **the 5<sup>th</sup> IFFO/JCI Fishmeal and Fish Oil Forum**, held in Guangzhou gave IFFO the opportunity to explore all areas of the Chinese market, looking at both internal and external influences. **The 2018 IFFO Fishmeal and Fish oil workshop in Changsha (China)** was attended by over 120 delegates, 13 of whom became IFFO leads and one of them successfully joined IFFO in January 2019.

IFFO's Technical team hosted **two workshops**, one in Lima (Peru), and one in Concepcion (Chile). These workshops were conceived as an opportunity to engage directly with the technical representatives of the IFFO member companies in Peru and Chile.

**IFFO press releases** covered all events and research news, while **IFFO opinion editorials and position papers** aimed to shape discussions on the sourcing and use of marine ingredients. Since 2017, a blog hosted on the IFFO website allows us to give more a regular insight into IFFO's activities, with updates on travels and in-depth insights into trending discussions. 2018 was a year of ongoing engagement with the press and other writers on the subject of fishmeal and fish oil replacement, use of by products and the annual conference.



© Kormphoto



# 2018 achievements

## Advocacy



### European Union

The [Aquaculture Advisory Council \(AAC\)](#) is a multi-stakeholder platform set up by the European Commission in 2016 with an aim to provide recommendations and advice to the European bodies (Commission, Parliament in particular) on the sustainable development of the aquaculture sector in Europe. IFFO became members in 2017.

In 2018, the AAC has been looking at the concepts of [Fish In: Fish Out ratios](#), and related concepts such as Forage Fish Dependency Ratio (FFDR), with inputs from IFFO, who was able to provide some balance to the discussions on such a complex subject.

The AAC has also been working on a sustainable aquaculture feeds position paper, led by Dr Niels Alsted. IFFO has also had some input into this.



### China

IFFO has worked closely with the Ministry of Agriculture and Rural Affairs (MOARA), the General Administration of Customs (GAC), embassies in Beijing, and research institutions, on regulations/[standards development and revision](#), e.g. contributing to the revision of China Fishmeal Standard (GB 19164) and coordinating market access issues for IFFO members of US, India, Denmark, etc.

IFFO has also coordinated fishmeal sample delivery to Dalian University of Technology for their experiments on [antibiotics and ARGs](#) (antibiotics resistance genes) and communicated with the Yellow Sea Fishery Research Institution (YSFRI) on EPA and DHA values in feed-grade fish oil, helping YSFRI with global cod liver oil data.

IFFO has established working relationships with two new stakeholders: the China Entry & Exit Inspection and Quarantine Association (CQIA) and the National School of Development of Peking University, with an agreement with CQIA to sign a memorandum of understanding. [This year's aquaculture industry report focused on the farmed crayfish industry in China](#) and was shared with members in July 2018.



# 2018 achievements

## Representing the industry

Beyond the 6 events which IFFO organised in 2018, it hosted a side event with partners at the Committee on Fisheries 33<sup>rd</sup> Session (COFI 33), held by the Food and Agriculture Organisation of the United Nations (FAO). It gave an opportunity for fishery and feed bodies to communicate the pivotal role that aquaculture plays in global food security, as well as the opportunities and challenges faced across the industry.

IFFO presentations were given at the following external and internal events:

### February 2018

- AquaFarm Conference

### March 2018

- IFFO/JCI Fishmeal & Fish Oil Forum
- Sharing Session of Public Relations Professional Managers in China Food Industry (CNHFA workshop)

### April 2018

- IFFO Fishmeal & Fish Oil Workshop in China
- IFFO Members' Meeting

### May 2018

- Aquaculture UK 2018 – Sustainable marine ingredients and their role in fish nutrition, health and welfare
- Global Aquaculture Summit
- Green Fisheries Development Conference
- IntraFish Seafood Investor Forum

### July 2018

- FAO Committee on Fisheries – COFI33

### August 2018

- China International Salmon Industry Forum by CAPPMA

### September 2018

- 14<sup>th</sup> JCI Autumn Conference
- ISAAH-QASH project workshop – presentation on the link between framed salmon health and nutrition

### October 2018

- IFFO Rome Annual Conference

### November 2018

- Omega3 summit – Global Fish Oil Supply: inputs, outputs and markets
- Workshop on Fishmeal and Fish Oil – Nordic Centre of Excellence Network

### December 2018

- China Sea Bass Conference



# 2019 projects

By the very nature of its activity, the Marine Ingredients Industry is rooted in local areas. As well as an environmental stewardship, it has a responsibility to contribute to their economic development and social cohesion. While new and undergoing technical projects will help gather data, they will also serve the United Nations sustainable development goals.

## Technical projects 2019

To be always ahead of the curve, IFFO keeps an eye on any emerging issues in the marine ingredients industry, keeping members up to date and responding when needed. Work is underway to deliver 7 technical projects approved by the Board earlier in 2017–18.



### Fishmeal quality parameters and their relation to the nutritional requirements of fed aquatic and terrestrial species.

IFFO commissioned Prof. Brett Glencross to look at the quality parameters in the global fishmeal products, investigating the factors that supply nutritional, health and welfare benefits to a range of farmed aquatic and terrestrial species. This work is equally important to IFFO in establishing the true value of the contributions supplied by marine ingredients in aquafeed and animal feed, crucial information that feeds into bioeconomic models and the marine ingredients industry's sustainability.

The project started in 2018 but the 2019 aspect of it is to look at how different fishmeals perform nutritionally with farmed salmon.



**Plastics and their relevance in Fishmeal and Fish Oil production.** The aim of the project is to provide information and data to help understanding of the issue of risk associated with plastics and fishmeal and fish oil production.



**Strategies for reducing/delaying oxidation in fishmeal and fish oil.** This project work is a long-running priority for IFFO. The objectives of the study are to detail options and strategies for controlling oxidation in fishmeal and fish oil and propose to the IFFO members some alternative strategies for oxidation reduction/delay to meet modern consumer and regulatory requirements. It will look at novel antioxidants and their application to fishmeal.



**Feeding the World Whilst Protecting Biodiversity: investigating the different environmental impacts of marine vs terrestrial protein production.** A team of international experts in the field of fisheries and agriculture environmental impacts is working on a project work which will outline how much the production of the different proteins impacts biodiversity. In particular, this will be a comparison of marine protein production with terrestrial vegetable protein.

# 2019 projects



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**Screening fishmeals for performance in aquafeed – salmon.** Prof. Brett Glencross of the University of Stirling's Institute of Aquaculture, was commissioned to take forward the results of the work delivered in project on fishmeal quality to look specifically at fishmeal performance in farmed Atlantic salmon, enhancing those results to provide a database with real world application. Farmed salmon models will be used to specifically evaluate the nutritional performance of select fishmeals on this species.



**Fishmeal production in West Africa.** This study will look at the issues relating to West African fishmeal production from the perspective of social, economic and environmental sustainability with the aim of identifying where improvements can be prioritised and targeted to enable increasingly responsible supplies of fishmeal. Through this study which is co-funded with IFFO by the Global Aquaculture Alliance, IFFO wants to fill in information gaps in order to support positive change in the industry on the long-run, where that is required.



**A more sophisticated way of looking at Fish-In:Fish Out ratios: New methodology for scoring hierarchies for fish-out options in FIFO calculations.** IFFO commissioned Richard Newton (Aqua Horizons Consultancy) to look at the Fish In: Fish Out paradigm in a more sophisticated manner, one that shall take into account the true value of fishmeal and fish oil and their nutritional benefit in aquafeed. This project started in 2018 and a Phase II will be delivered by the end of 2019.

IFFO members can expect more information to be reported on these projects in the Annual Conference, as well as next year's Annual Report.

## Stakeholder management

### Stakeholder mapping

As the Marine Ingredients industry is currently undergoing deep transformations, a stakeholder mapping and analysis is conducted through 2019. This study implies identifying key perceptions and beliefs of marine ingredients in each supply chain sector and has led IFFO to focus on three key-messages:

1. The marine ingredients industry is committed to transparent supply chains
2. Quality feed means quality food
3. Marine ingredients feed a growing population.

### Advocacy

The technical team is heavily involved with work on the optimal use of fishmeal and fish oil in animal feeds, responsible sourcing and fisheries improvements. Together with IFFO RS, the Global Standard for Responsible Supply, IFFO calls for increased collaboration among stakeholders in regional fisheries and throughout the seafood supply chains. That increased collaboration will help facilitate the development and initiation of Fisheries Improver Projects (FIPs).



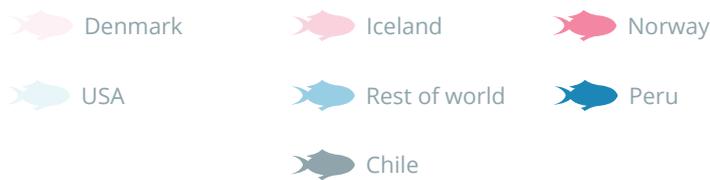
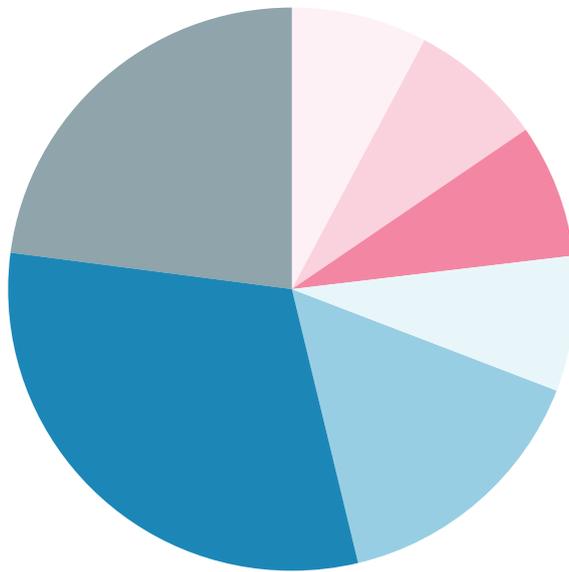
# Membership

IFFO's membership has remained stable with 235 members from 39 countries at the end of 2018. IFFO's global reach covers every continent, with over 50% of the world's production of fishmeal and fish oil coming from our members. Almost half of our new members in 2018 are based in Europe, a strong region for our industry, and the second area of growth is Asia. In respect of the type of companies, 11 new trading companies joined as Non-Producer or Premium members and 2 fishmeal and fish oil producers joined as Producer members.

## Governance

The Management Board of IFFO is made up from Producer members nominated by either individual countries or regions. Each director serves a 2 year term and is then eligible for re-election.

Country representation of IFFO Board



## 2018/19 term:

### Members of the Board

**Mr E Goycoolea** (Chile) – Board President for 2018/19

**Ms A M Baek** (Denmark) – Board Vice President for 2018/19

**Mr J Rortveit** (USA)

**Mr G de Romana** (Peru)

**Mr H Speziani** (Peru)

**Mr J C Ferrer** (Chile)

**Mr F Zaldivar** (Chile)

**Mr W Martinez** (Peru)

**Mr J P Andersen** (Iceland)

**Mr Fernando R Bernales** (Peru)

**Mr A O Hoddevik** (Norway)

**Mr M Copeland** (Rest of World)

**Mr H Korsager** (Rest of World)

# 2018 accounts

## Auditors' opinion (Hillier Hopkins LLP – Chartered Accountants & Statutory Auditor):

"We have audited the financial statements of IFFO (2012) Limited (the 'Company') for the year ended 31 December 2018, which comprise the Statement of comprehensive income, the Balance sheet and the related notes, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the Company's affairs as at 31 December 2018 and of its profit for the year then ended
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice and
- have been prepared in accordance with the requirements of the Companies Act 2006."

## Statement of comprehensive income for the year ended 31 December 2018

	2018 (£)	2017 (£)
Turnover	1,444,295	1,501,121
<b>Gross profit</b>	<b>1,444,295</b>	1,501,121
Administrative expenses	(1,949,422)	(2,016,513)
Other operating income	550,381	637,274
<b>Operating profit</b>	<b>45,254</b>	121,882
Interest receivable and similar income	18	-
<b>Profit before tax</b>	<b>45,272</b>	121,882
Tax on profit	(6,174)	(4,738)
<b>Profit for the financial year</b>	<b>39,098</b>	117,144
<b>Other comprehensive income for the year</b>		
<b>Total comprehensive income for the year</b>	<b>39,098</b>	117,144

## Balance sheet as at 31 December 2018

<b>Fixed assets</b>		
Tangible assets	364,597	381,595
Investments	1	1
	364,598	381,596
<b>Current assets</b>		
Debtors: amounts falling due within one year	124,517	99,994
Cash at bank and in hand	1,210,352	1,133,385
	1,334,869	1,233,379
Creditors: amounts falling due within one year	(183,323)	(137,930)
<b>Net current assets</b>	<b>1,151,546</b>	1,095,449
<b>Total assets less current liabilities</b>	<b>1,516,144</b>	1,477,045
<b>Net assets</b>	<b>1,516,144</b>	1,477,045
<b>Capital and reserves</b>		
Profit and loss account	1,516,144	1,477,045
	1,516,144	1,477,045

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