



Benchmark
Holdings plc

Capital
Markets Day
2016





BENCHMARK CAPITAL MARKETS DAY 2016

13.00 – 13.05 **Introduction and Welcome (Alex Hambro)**

13.05 – 13.20 **Panel 1: The Macro Environment**

13.20 – 13.35 **Panel 2: The Aquaculture Business**

13.35 – 14.10 **Panel 3: Benchmark's Technology Centre – Part 1**

Break

14.30 – 15.30 **Panel 3: Benchmark's Technology Centre – Part 2**

15.30 – 16.15 **Panel 4: Financial Model and Capital Structure**

16.15 – 16.25 **Panel 5: The Way Forward**

Networking



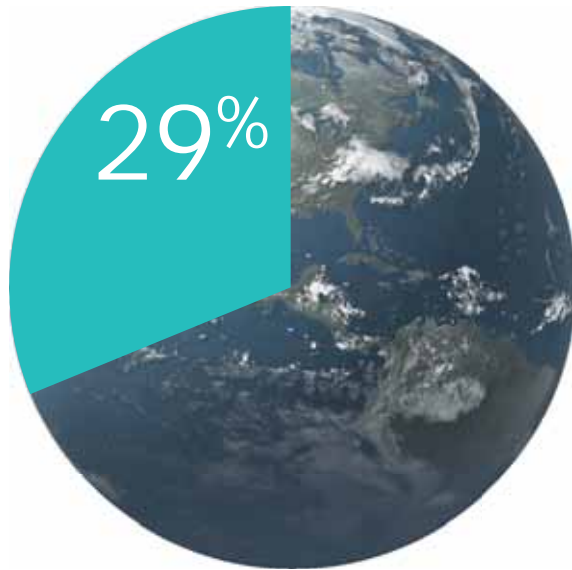
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PANEL 1

The macro environment

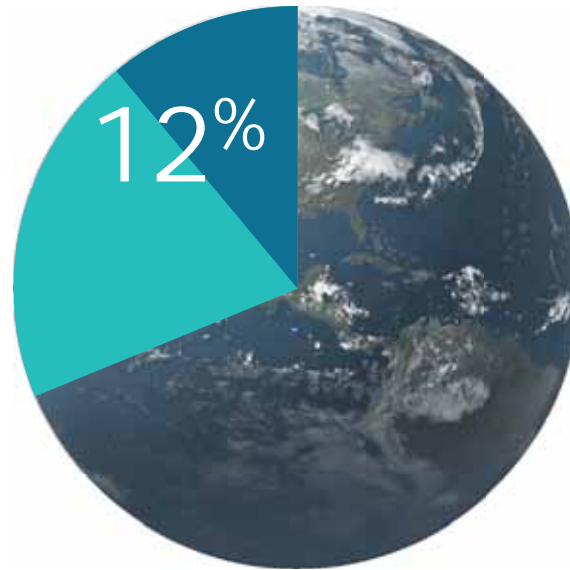
Roland Bonney,
Chief Operating Officer





of our planet is covered by land

From this

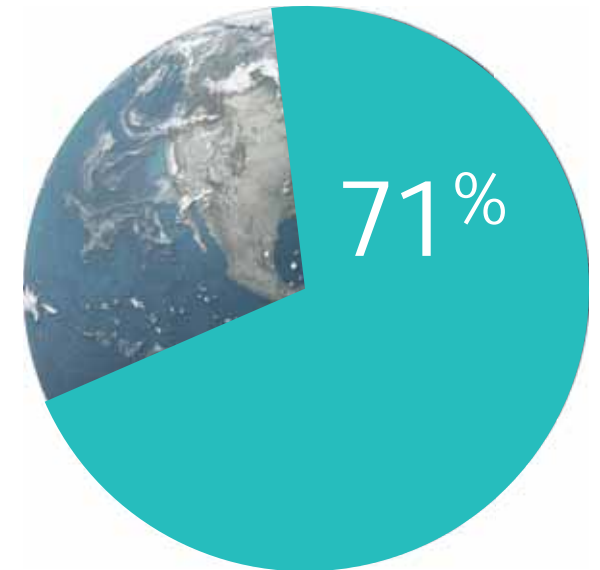


is occupied by agriculture

98%

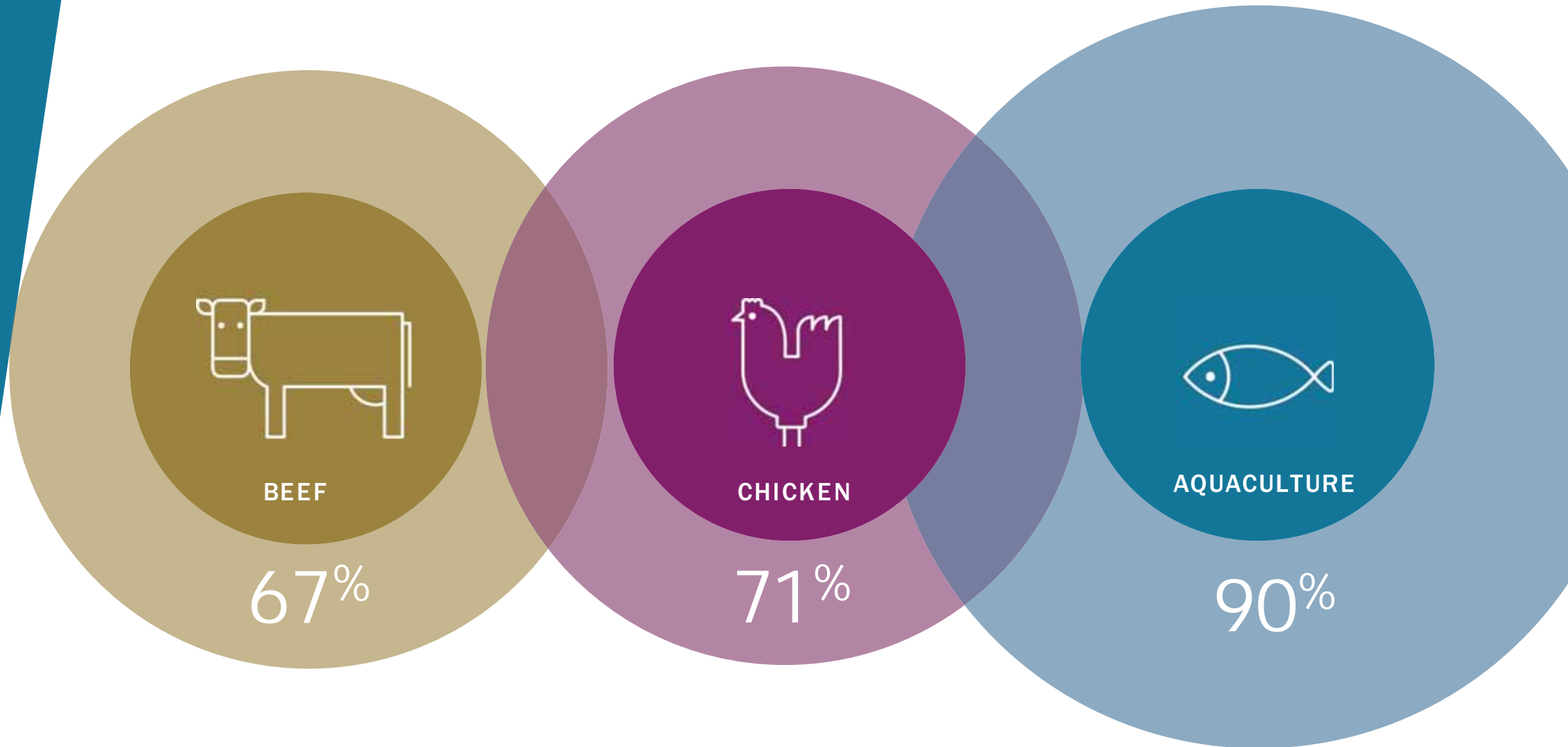
of our food is produced from this small section of the earth's surface

Fisheries & aquaculture are the only industries that can utilise the remaining





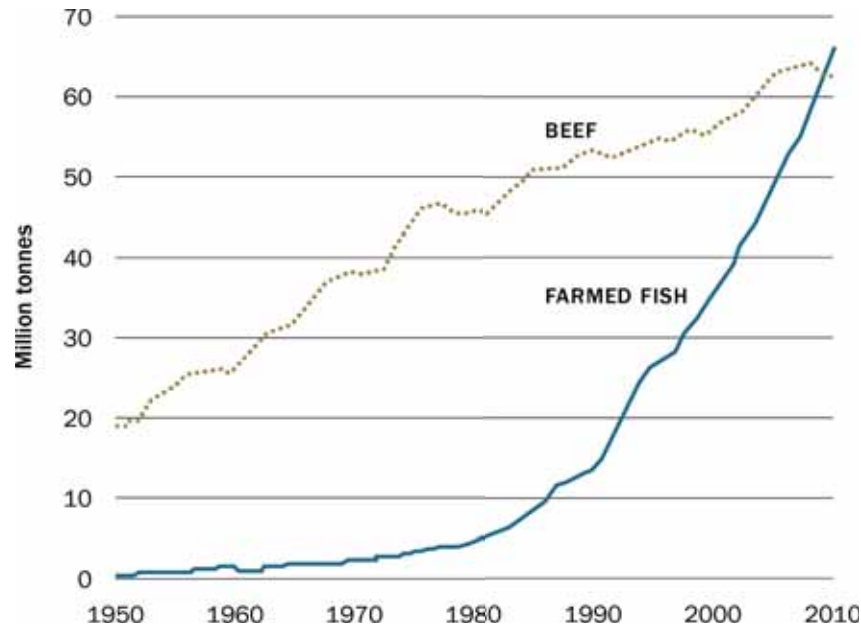
BY 2050 GLOBAL PRODUCTION IS EXPECTED TO INCREASE BY...



Source: FAO

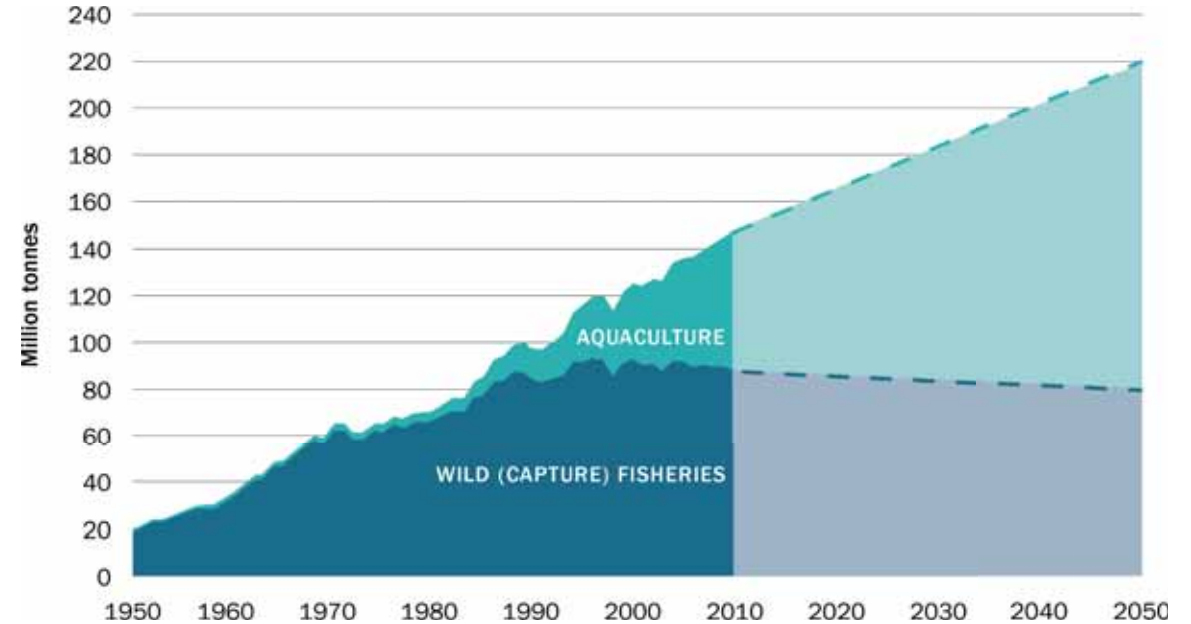


Farmed fish production has exceeded beef production



Source: EPI based on FAO, USDA; Earth Policy Institute

Seafood supply — all growth will come from aquaculture



Source: Historical data 1950-2010: FAO 2014. "FishStatJ." Rome: FAO. Projections 2011-20150: Calculated at WRI, assumes 10 per cent reduction in wild fish catch between 2010 and 2050, and linear growth of aquaculture production at an additional 2 million tons per year between 2010 and 2050

"We must plant the sea and herd its animals using the sea as farmers instead of hunters. That is what civilization is all about — farming replacing hunting."

JACQUES COUSTEAU, OCEANOGRAPHER



AQUACULTURE SECTOR IS THE MOST EFFICIENT CONVERTER OF COMMODITY RAW MATERIALS



Source: Rabobank

High quality, highly desirable protein

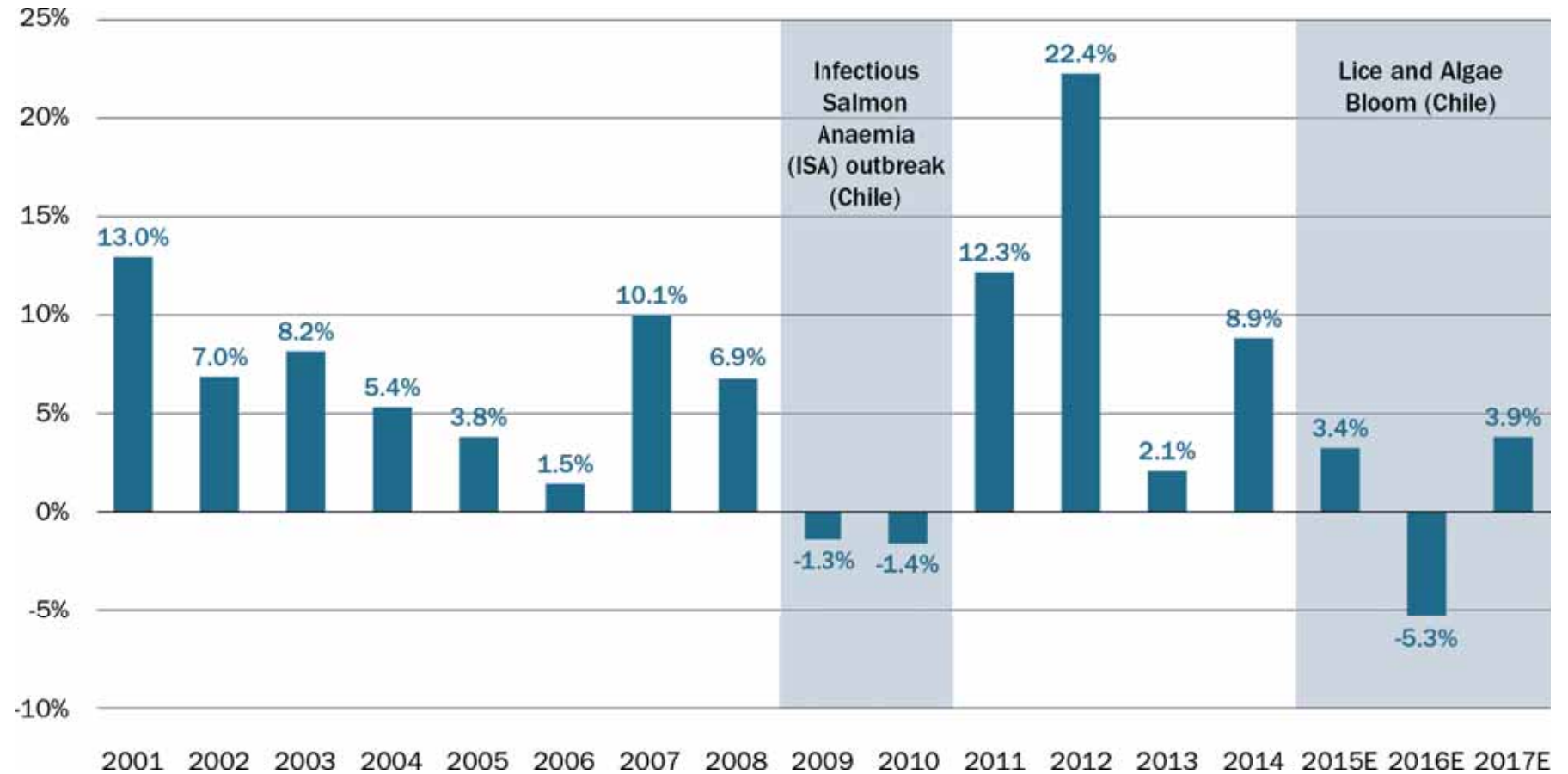
Processing low value raw material





DISEASE CONSTRAINS SUPPLY

YOY change in global farmed Atlantic Salmon supply and forecast (%)



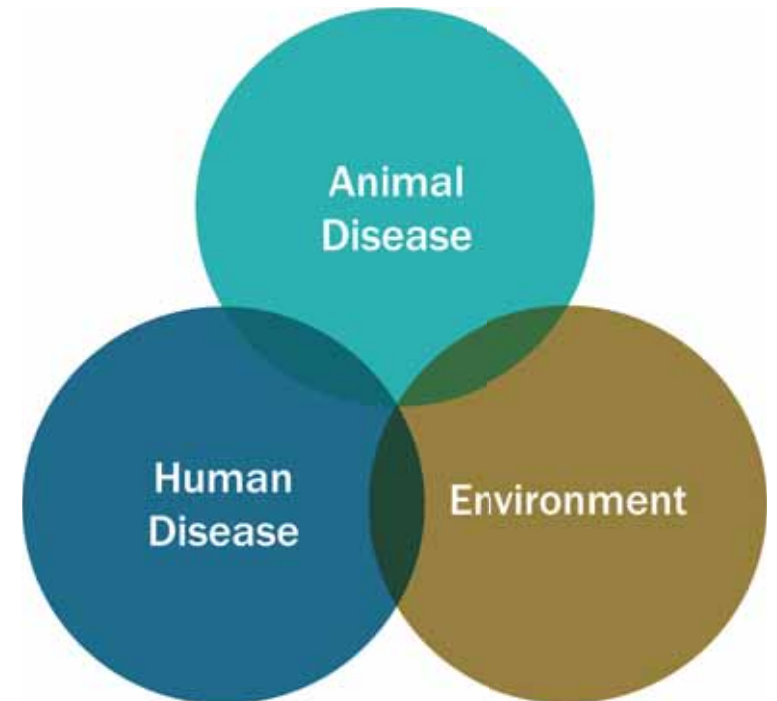


ANIMAL HEALTH AND HUMAN HEALTH ARE INTRINSICALLY LINKED

There are 15 WHO critically or medically important antibiotics, a number of which are still routinely used in agriculture and aquaculture

One Health

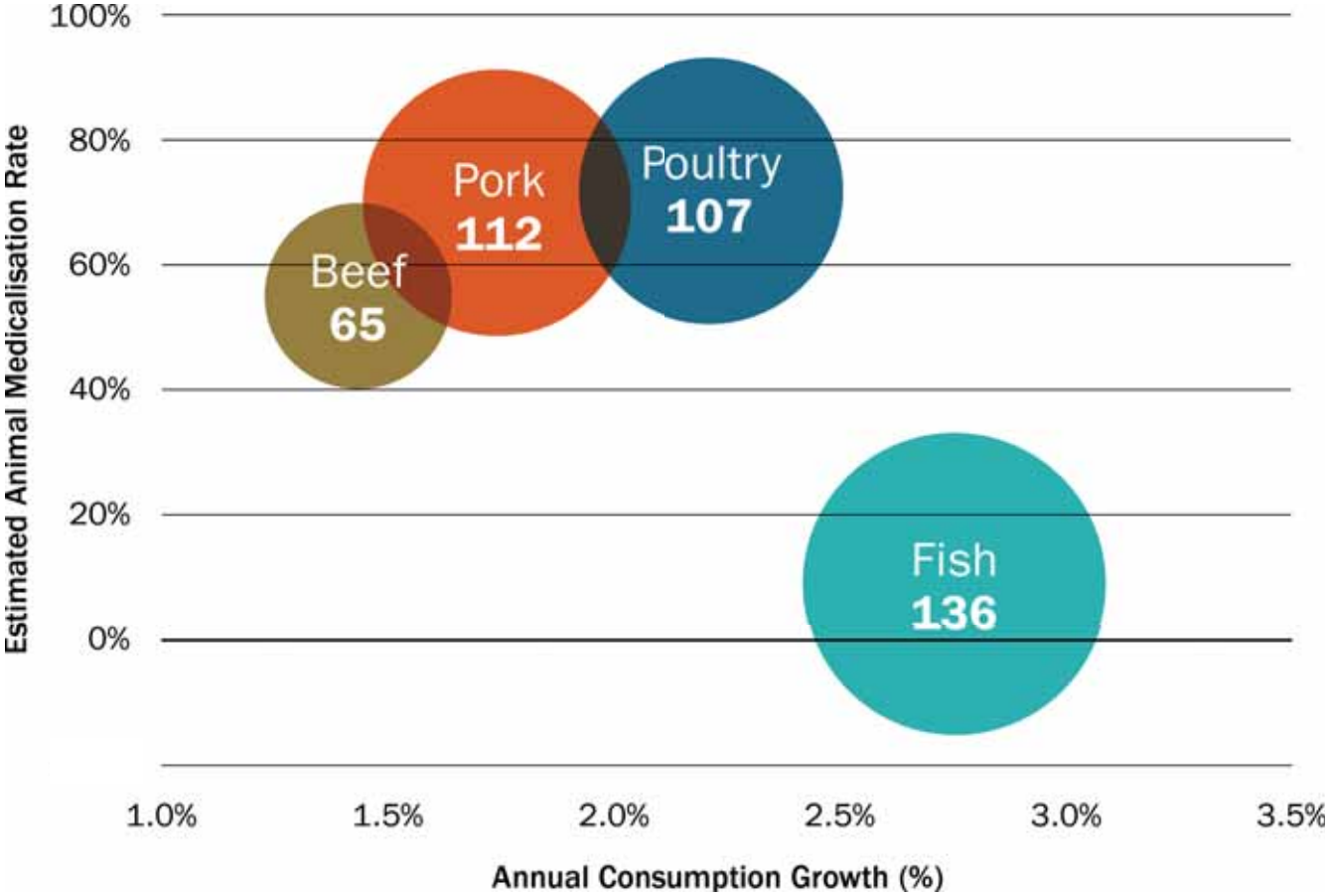
- c.60% of all human diseases and 75% of all emerging infectious diseases are zoonotic (passed between humans and animals)
- 13 deadliest of these diseases kill 2.2 million people a year
- **Benchmark's genetics, vaccines and probiotics provide a solution to the problem of antibiotic use in animal production**





MEDICALISATION OPPORTUNITY

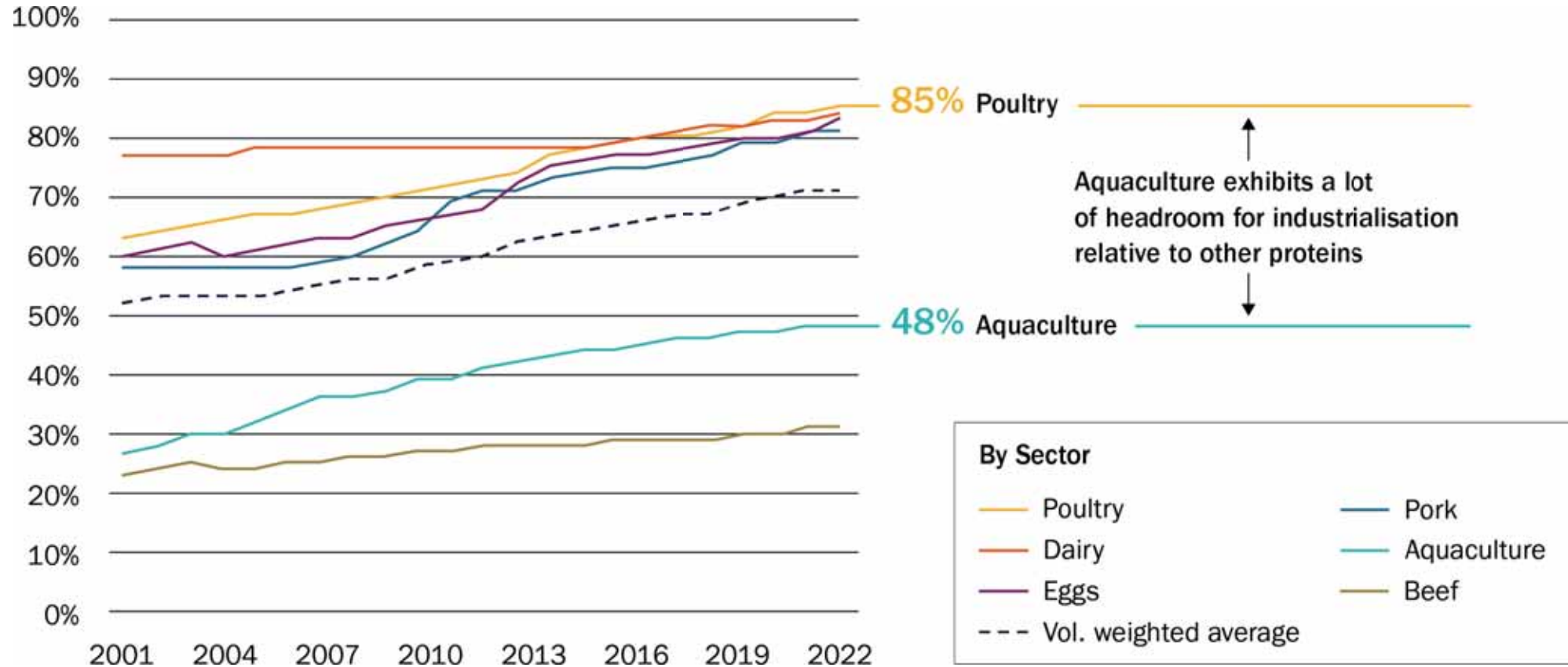
Annual Consumption (Million Metric Tons)





TECHNOLOGICAL OPPORTUNITY

% production modernised by sector



Source: USDA, FAOSTAT



OUR OPERATIONS



'Hands in the water' —
global presence, local reach

- R&D facilities and farms
- Diagnostic laboratories
- Commercial services
- Manufacturing/production



HEALTHY FISH, HEALTHY PEOPLE,
HEALTHY PLANET

Aquaculture is the new agriculture

The blue revolution is a technological revolution requiring:

- Informed management
- Robust genetics
- Advanced early stage nutrition
- Health products

Benchmark is at the forefront of the blue revolution





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Malcolm Pye,
Chief Executive Officer

PANEL 2

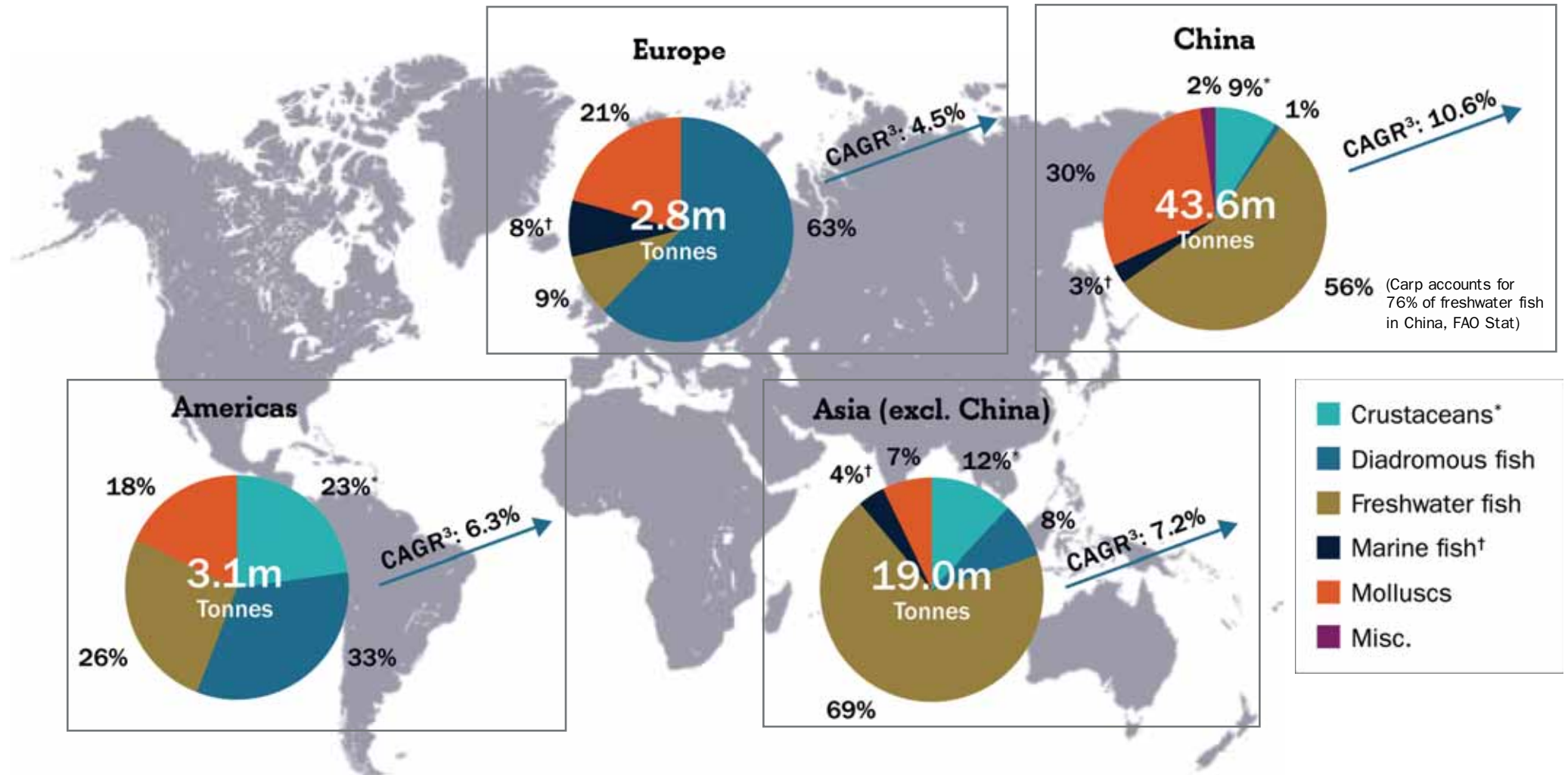
Aquaculture business The new agri business

Image: Benchmark's Tilapia Hatchery, Miami





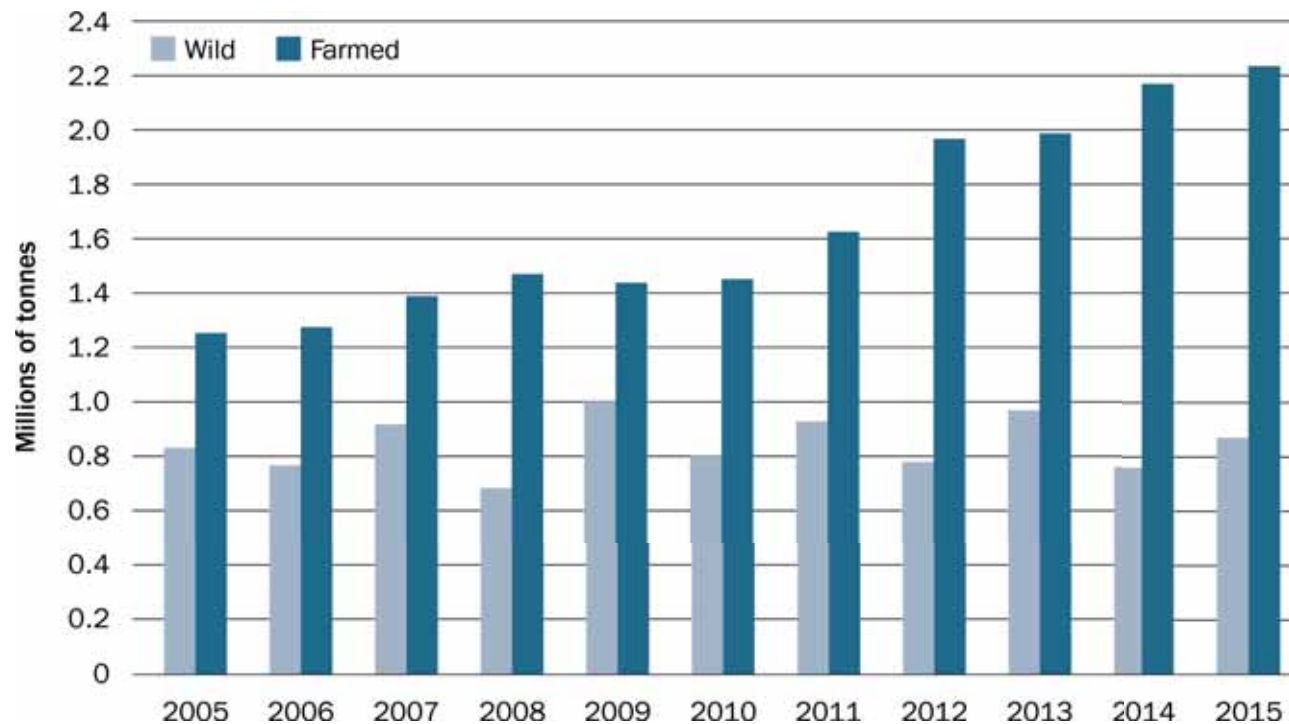
AQUACULTURE PRODUCTION GROWING GLOBALLY ACROSS ALL MARKETS



Note 1. Addressable species includes intensive and extensive aquaculture
Note 2. Global production includes Africa and Oceania not shown separately
Note 3. CAGR refers to total market of 1950 - 2013
Source: INVE Information Memorandum, FishStat, FAO



THE KEY MARKETS: SALMON



- 70% of world's salmon production is farmed
- 10.7 bn USD global market
- The market for Atlantic salmon has, on average, increased by:
 - 6.2% in all markets the last 10 years
 - 8.6% in the last 20 years
- Largest producing countries — Norway, Chile, Scotland, Canada
- Higher growth requires progress in:
 - technology
 - improved industry regulations
 - intercompany cooperation

Major Salmon Producers

Marine Harvest

Salmar

Lerøy

Mitsubishi

Cooke Aquaculture

Empresas Aquachile

Salmones Multiexport

Pesquera Los Fiordos

The Scottish Salmon Co

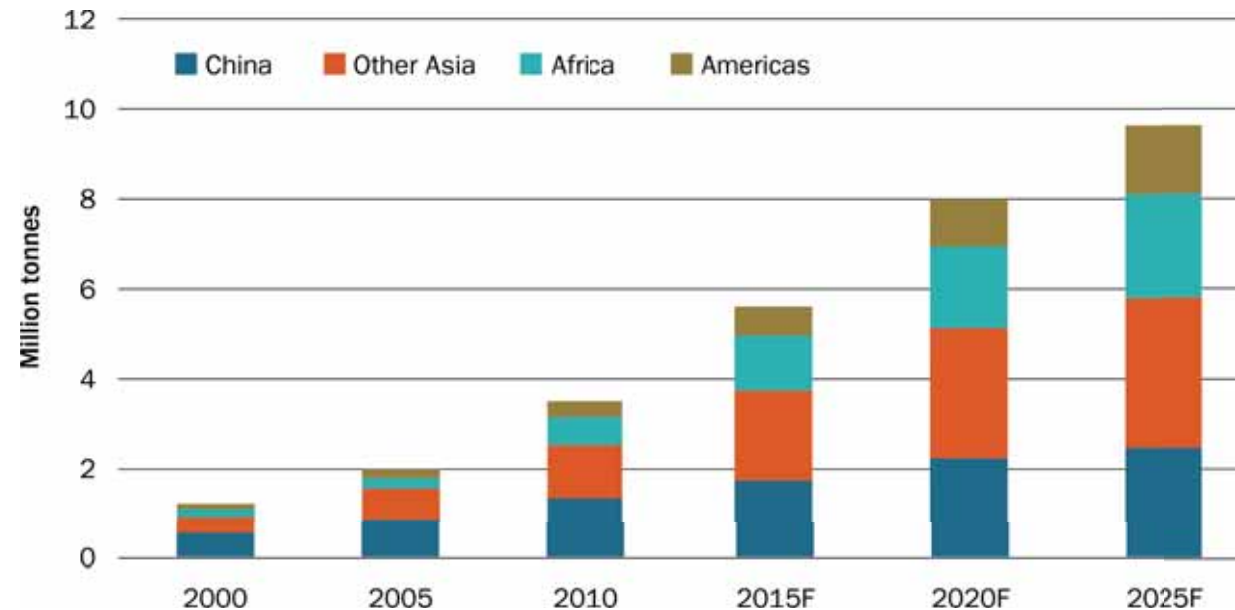
Bakkafrost

Grieg Seafood

Cermaq



THE KEY MARKETS: TILAPIA



- Global tilapia production has increased by 11 per cent annually over the past decade
- Industry has an estimated value of 6.7bn USD*
- Very extensive and fragmented industry
- China accounts for a third of all production, Latin America also seeing growth
- Road to maturity will be long, technological improvements will help as well as more intensive professional and consolidating management
- High need for good seed

Source: Food and Agriculture Organization of the United Nations, Rabobank, 2014

Major Tilapia Producers

JAPFA

Golden Springs

CP

Lake Harvest

ACI group

Copacol

Netuno

Copisces

Geneseas

INDPESCA

West Coast Waterbase

AQUAFARM

Grobest / Nakhonpanom

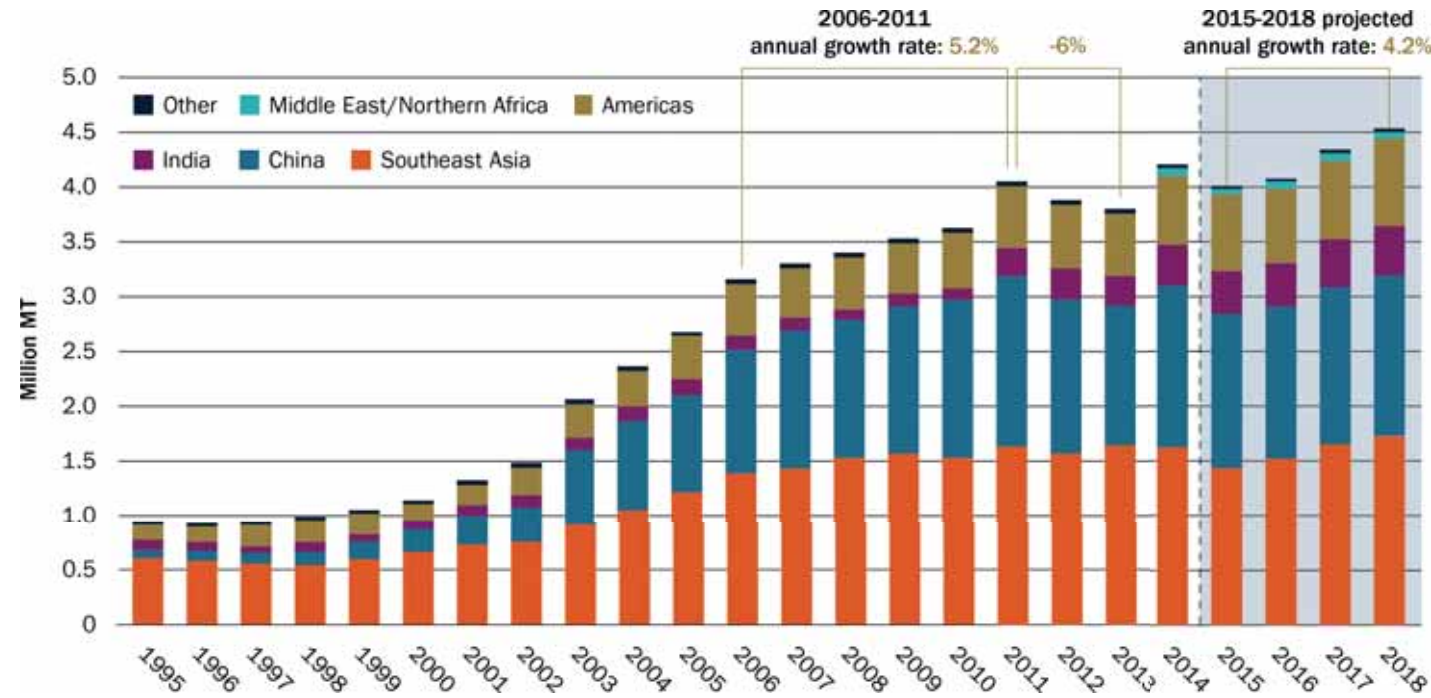
Kornkiart /
Kampeangpetch

TRAPIA



THE KEY MARKETS: SHRIMP

Shrimp aquaculture production by world region: 1995-2018



- World shrimp market: 15 Bn USD
- Expected to grow 5 - 10 fold by 2050
- Slow recovery from EMS
- Financially weak producers after many EMS years, high need for investors
- Industrialisation and investments for better husbandry and daily management, as well as in advanced technologies and stronger genetics, will help growth
- Main recovery expected from Asian countries (China, Thailand, Vietnam, Indonesia, India)

Major Shrimp Producers

BIM
DAC LOC
THONG THUAN
SEAFARMS Group
Agrobest
Blue Archipelago
Aquacards
CP Farms
Nukul Farm
BMR Group
Vaisakhi Group
CPP Lampung
Pesquera Santa Priscila
Omarsa
Expalsa
Granjas Marinas
Deli
CAMANICA
CAMACO

Sources: FAO (2016) for 1995-2011; FAO (2016) and GOAL (2014) for 2012-2014; GOAL (2016) for 2014-2018



WHAT TECHNOLOGY IS NEEDED SUCCEED

Innovation across the entire value chain

- Solutions that the end customer will support
- Building long-term value

Technologies	BMK	Competitors				
		1	2	3	4	5
Veterinary services	✓					
Diagnostic laboratories	✓	✓				
Pharmaceuticals, vaccines & biocides	✓	✓	✓	✓	✓	
Genetic programmes & breeding stock	✓		✓			
Specialist, advanced nutrition	✓					✓
Species						
Salmon	✓		✓		✓	
Tilapia/Catfish	✓	✓			✓	
Sea Bass/Sea Bream	✓	✓				
Shrimp	✓			✓		✓
Emerging species e.g. grouper	✓					✓

Animal Health*
\$400m

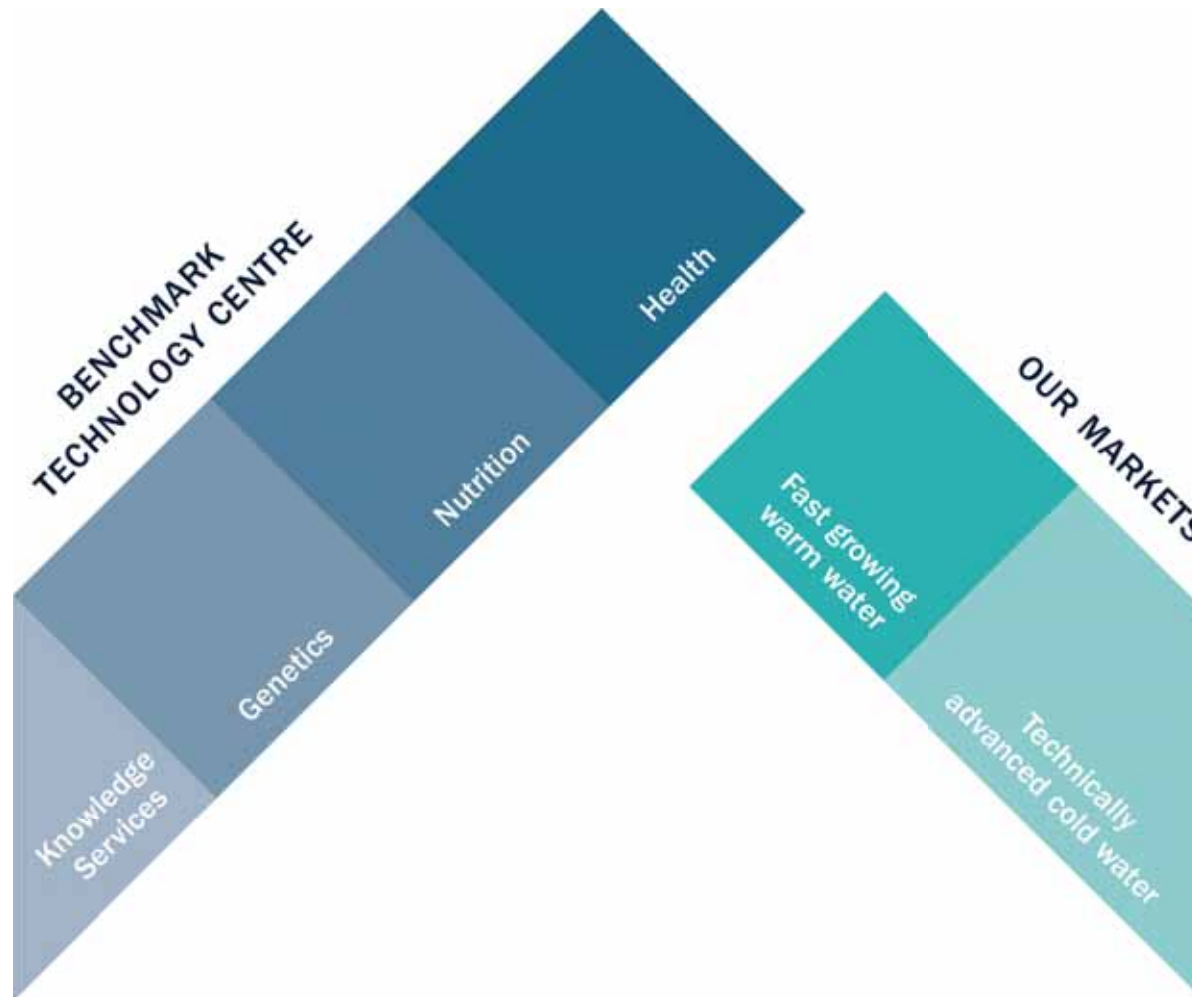
Early Stage
Nutrition*
\$250m

Breeding &
Genetics*
Shrimp: \$500m
Salmon: \$110m
Tilapia: \$316m¹

* Management estimates
1 Source: Inocap



BENCHMARK: WORLD-LEADING INTEGRATED AQUACULTURE TECHNOLOGY PROVIDER



Biological control is the
key driver for financial
performance for farmers

- Harnessing best expertise
- Deploying cutting edge technologies
- Embedded alongside our customers



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PANEL 3

Benchmark Technology Centre

Image: Benchmark's Vaccine Manufacturing Facility, Braintree UK





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Hamish Rodger, FVG
Global Managing Director

Knowledge services — for informed management



Knowledge Services

WHAT DO WE MEAN BY KNOWLEDGE SERVICES

Understanding the threats and determining livestock performance (health, genetics and nutrition) to best interpret and apply management practices

- Fish Vet Group (FVG) — clinical & diagnostic services
- FAI — aquaculture R&D facilities
- Technical Publishing — industry training and best practice techniques

Image: Fish Vet Group, Asia





STRATEGY

Harnessing best expertise

- Creating the best insight through globally recognised specialists

Deploying cutting edge technologies

- Taking aquaculture diagnostics into the digital age
- Developing software platforms for tracking, clinical management and analysis

Embedded alongside our customers

- Integrated health management — involved in decision making with companies
- At coalface of aquaculture industry

Image: Fish Vet Group, Norway





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

Fish Vet Group

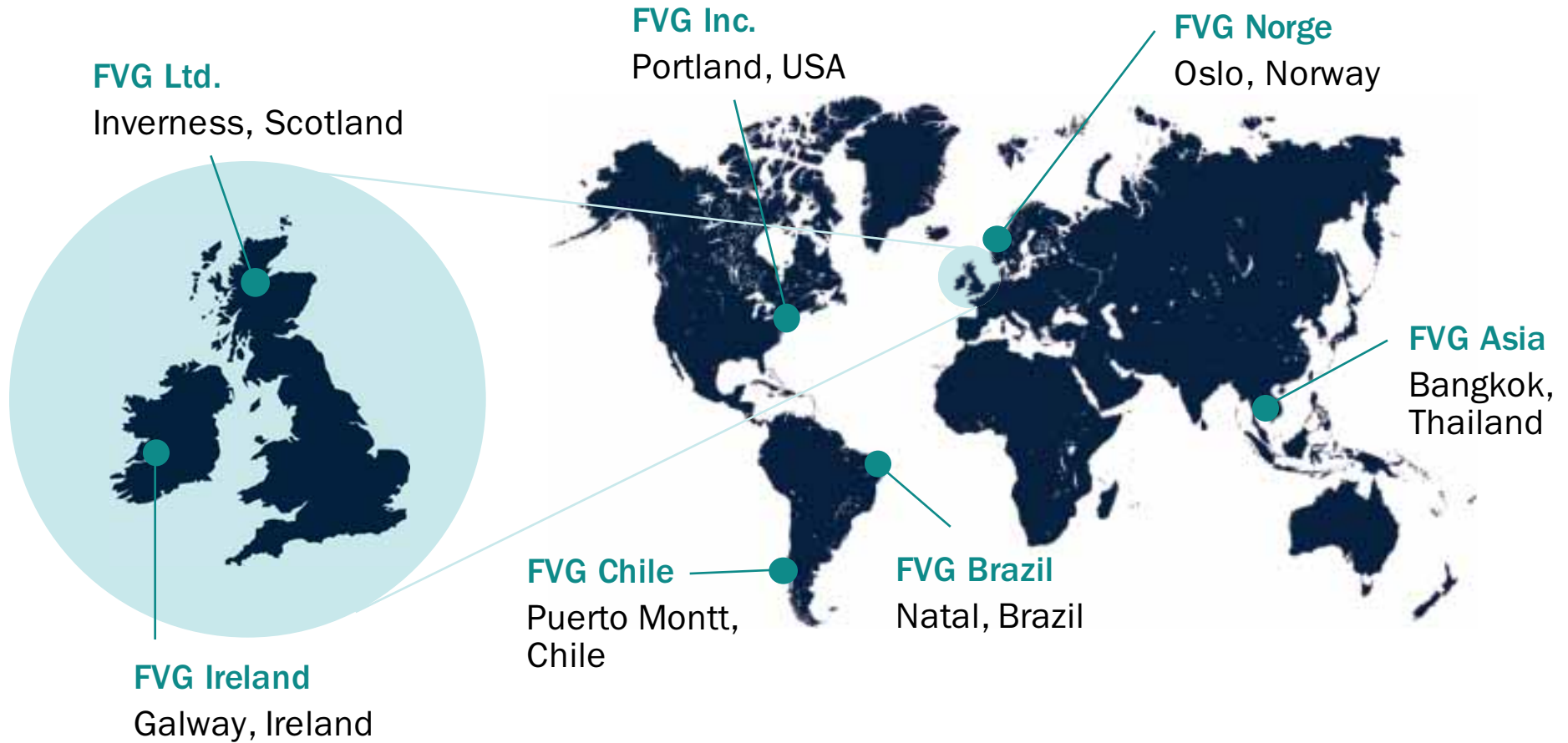
- >75 veterinarians and fish health professionals
- Leading expertise in diagnostic histopathology
- Many global specialists
 - Unique ability to identify and consult on aquaculture disease e.g. shrimp in South East Asia

Image: Fish Vet Group, Norway





LOCATION & FACILITIES
— FISH VET GROUP





CAPACITIES
CLINICAL & DIAGNOSTICS

At the front line

- Prescribing veterinary surgeons in key markets
- Involvement across supply chain (farming, feed, pharma, processors)
- First responder with diagnostics
- First mover advantage in identification of new disease challenges

Image: Fish Vet Group, Inverness





CAPACITIES
— CASE STUDY

Bath treatments

- Largest cause of mortality (biomass) in salmon farming
- Need to know condition of fish (gills & muscles)
- Screening pre-bath with digital histology allows for informed decision making





CAPABILITIES
— AQUACULTURE R&D FARMS

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

Miami, US
Tilapia trials unit

Jaboticabal, Brasil
Tilapia trials unit

Ardtoe, Scotland
Aquaculture trials unit and cold water challenge unit

Pisa, Italy
Warm water nutritional trials

Chonburi, Thailand (x2)
Shrimp and tilapia nutritional trials unit
Warm water challenge trial unit





Knowledge Services

BENEFITS TO OUR CUSTOMERS/MARKETS

- Knowledge services is driving our pipeline
- First mover advantage in disease identification
- Consolidating relationships with our clients
- Provides scientific advice and technical support to our customers





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Jan-Emil Johannessen,
Managing Director,
SalmoBreed

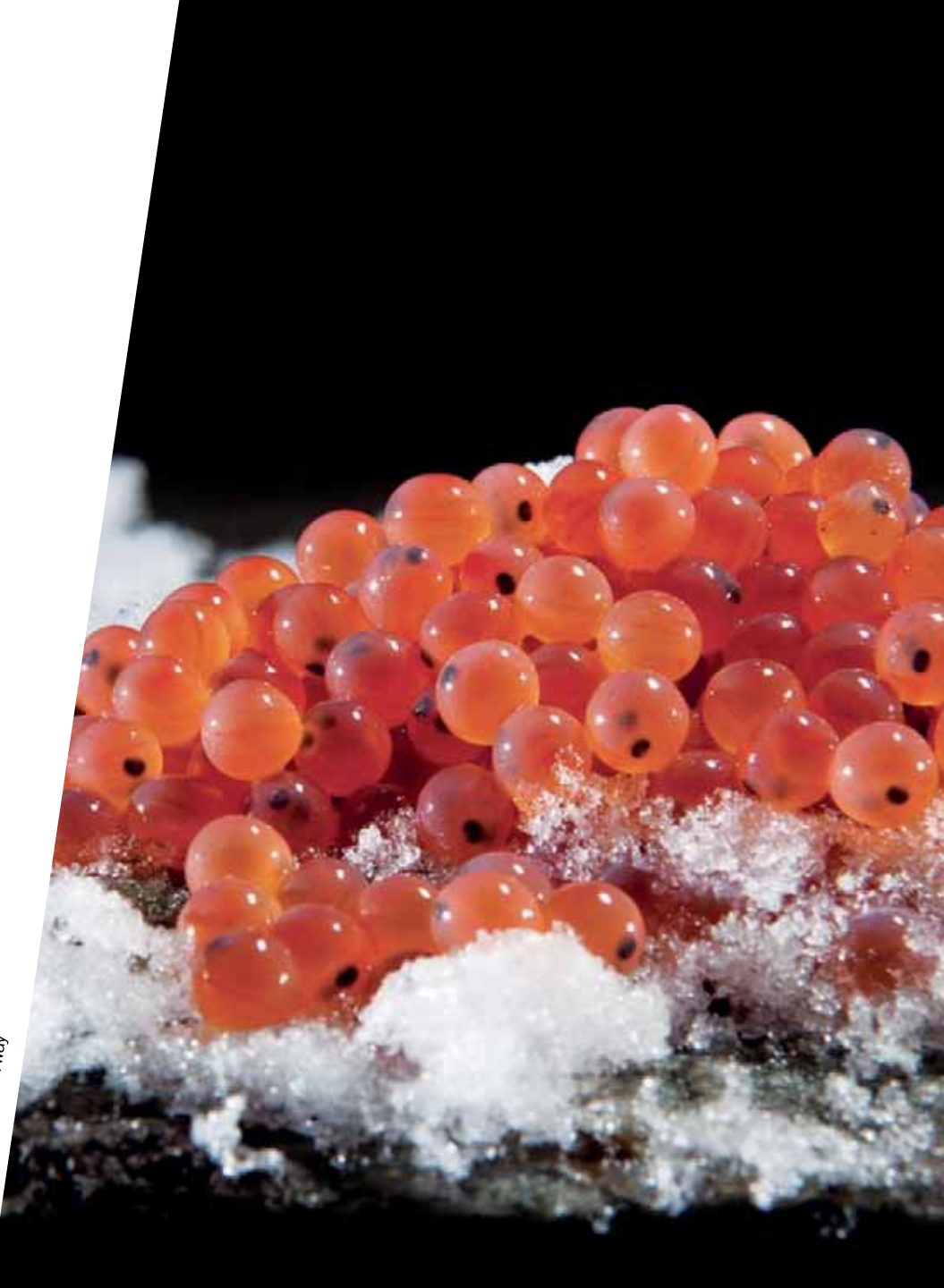
**All farming starts with
a choice of genetics**



WHAT DOES GENETICS SELECTION MEAN FOR AQUACULTURE

Delivering the best starting
point for production through
production efficiencies and
health resilience

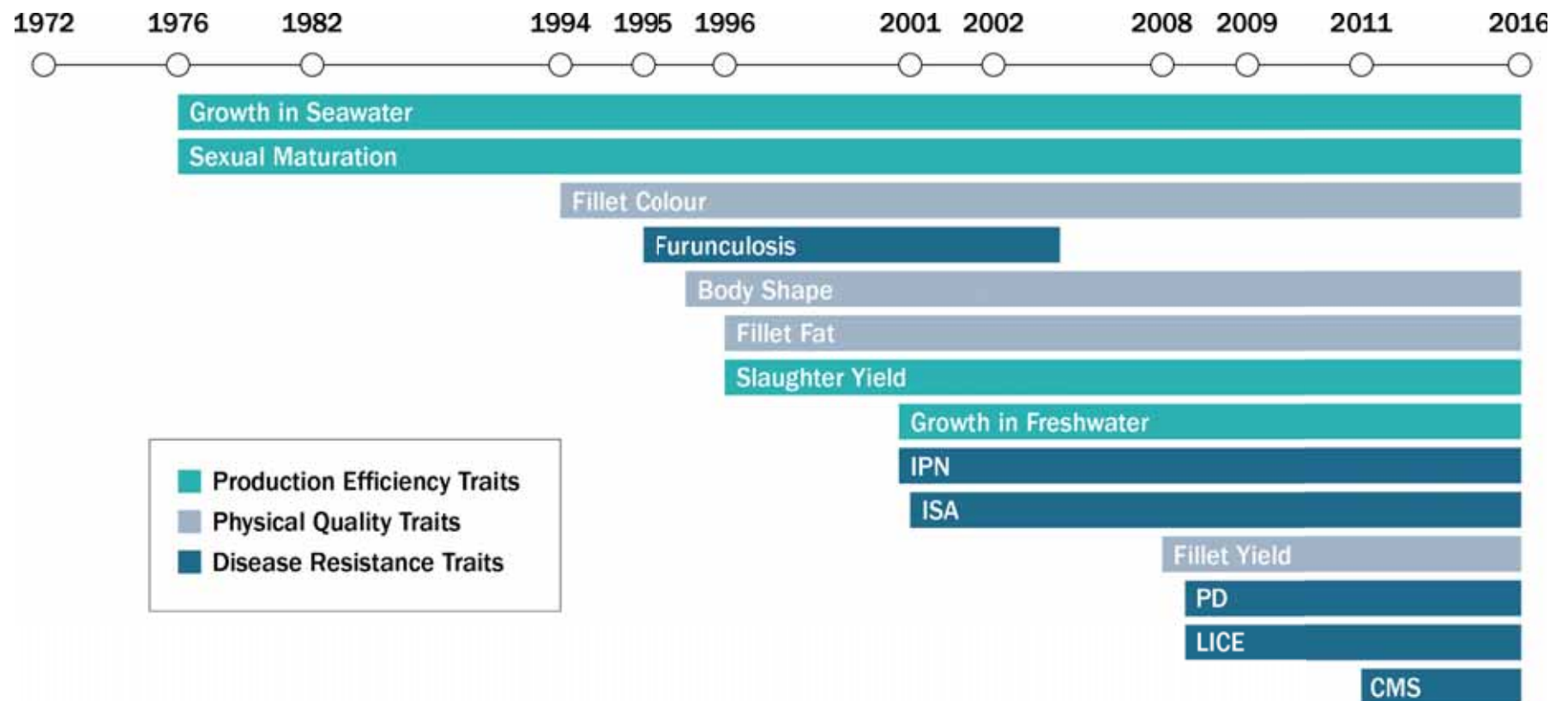
Image: SalmoBreed, Norway





WHAT DOES GENETIC SELECTION MEAN FOR AQUACULTURE — EXAMPLE TRAIT SELECTION FOR ATLANTIC SALMON

Disease resistance is now in addition key criteria for trait selection, together with production efficiency and flesh quality





STRATEGY

Harnessing best expertise

- Best qualified aquaculture genetics team in the world
- World's largest genetics company on selective breeding programs for all aquaculture species

Deploying cutting edge technologies

- Utilising modern genetic tools e.g. genomic selection for within family breeding
- Utilising existing technologies and developing new solutions to transfer into new species
- 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

Image: SalmoBreed, Norway





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY — R&D PROGRAMMES

25 applied programs
for 15 species in
15 countries



- Atlantic salmon
- Nile tilapia
- Red tilapia
- Nile, red & blue tilapia
- Nile & red tilapia
- P. vannamei*
- Turbot
- Atlantic salmon, coho salmon and rainbow trout
- Atlantic salmon & rainbow trout
- Atlantic cod
- Sea bass & sea bream
- Rohu carp
- P. monodon*
- P. chinensis*
- Pangasius



CUTTING EDGE TECHNOLOGY

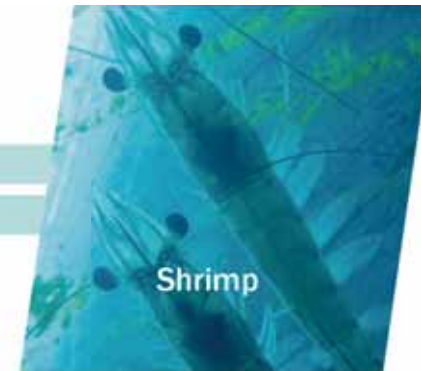
Using the technology available to use in a different way to our competitors

- Unique ability to transfer genomic knowledge to different species



Salmon

Taking the learning from Salmon



Shrimp



Tilapia

Deploying Technologies



Other major farmed species



CAPACITIES — LOCATION & FACILITIES — SALMON, ICELAND

- Highly biosecure land based production
- Utilising Iceland's unique geology and geothermic freshwater/seawater sources
- Total capacity: 200 M ova
- OIE Compartment approval – currently the only company in the world authorised to export Atlantic Salmon ova to Chile
- Sales to Norway, Scotland, Faroe Islands, Chile and other markets with year-round delivery





CAPACITIES — LOCATION & FACILITIES — SALMON, SALTEN NORWAY

- Land based salmon egg production facility
- Year round biosecure production
- Production capacity 150m eggs per year (37.5% uplift on current) and replace contract production
- Structured as a JV with Salten Stamfisk (established salmon producer)
- JV formed and construction has commenced in Autumn 2016

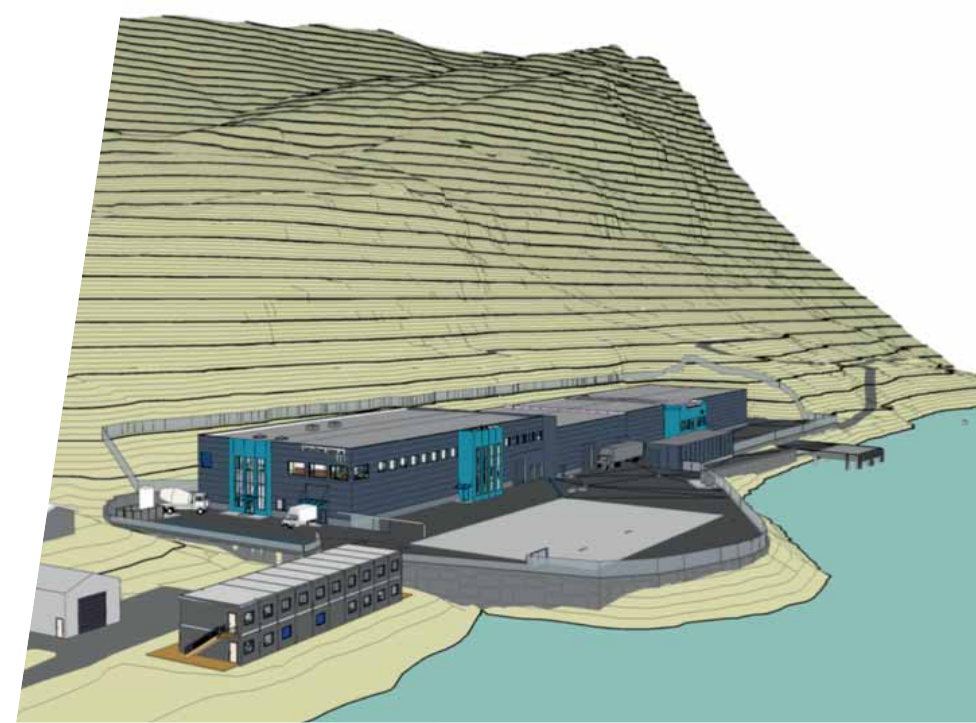
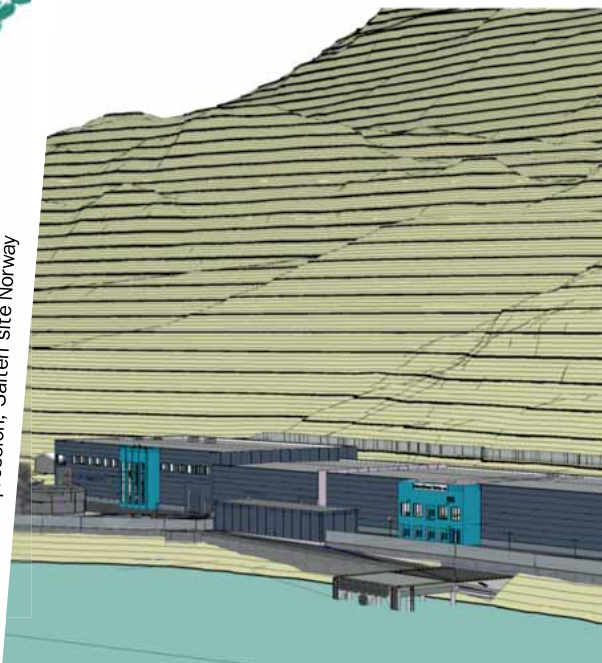


Image: Artist impression, Salten site Norway





CAPACITIES — LOCATION & FACILITIES — SHRIMP, COLUMBIA

- Specific pathogen resistant (SPR) shrimp breeding programme
- P.vannemei shrimp has taken over as (by far) largest commercial species world wide
- Established genetics programme and broodstock
- Strong synergy with INVE – routes to market already in place
- Supplying a resilient, commercially viable strain of shrimp to the global market for the first time





CAPACITIES — LOCATION & FACILITIES — TILAPIA, NORTH AMERICA

- Family breeding programme
- Spring Tilapia brand
- Nucleus in Florida/US
- Multipliers in Mexico, Brazil and El-Salvador
- Distributing world-leading tilapia strain to Asia for the first time





CAPACITIES — LOCATION & FACILITIES
— LUMPSUCKERS, SCOTLAND & ICELAND

- Biological control for sealice
- Indicative of Benchmark's commitment to environmentally sustainable treatment options
- Over 2m lumpfish

Image: StofnFiskur, Iceland





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY
— COMMERCIAL PARTNERSHIPS, PRODUCTS & ROUTES TO MARKET

PRODUCTS
Atlantic salmon ova
Atlantic salmon fry/smolts
Tilapia eggs, fry/juveniles
Shrimp postlarvae (PL), breeding animals
Genetic services multi species

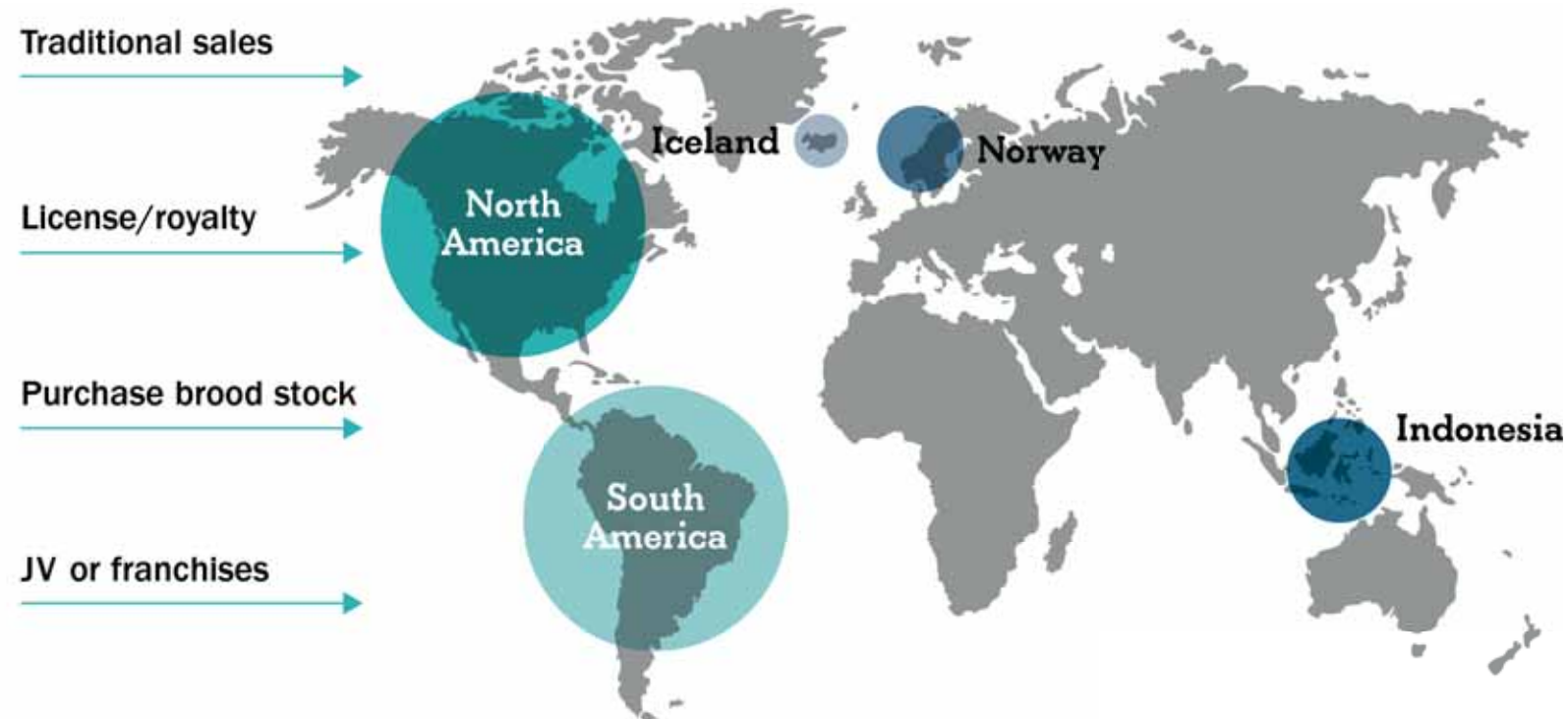
ROUTES TO MARKET

Traditional sales

License/royalty

Purchase brood stock

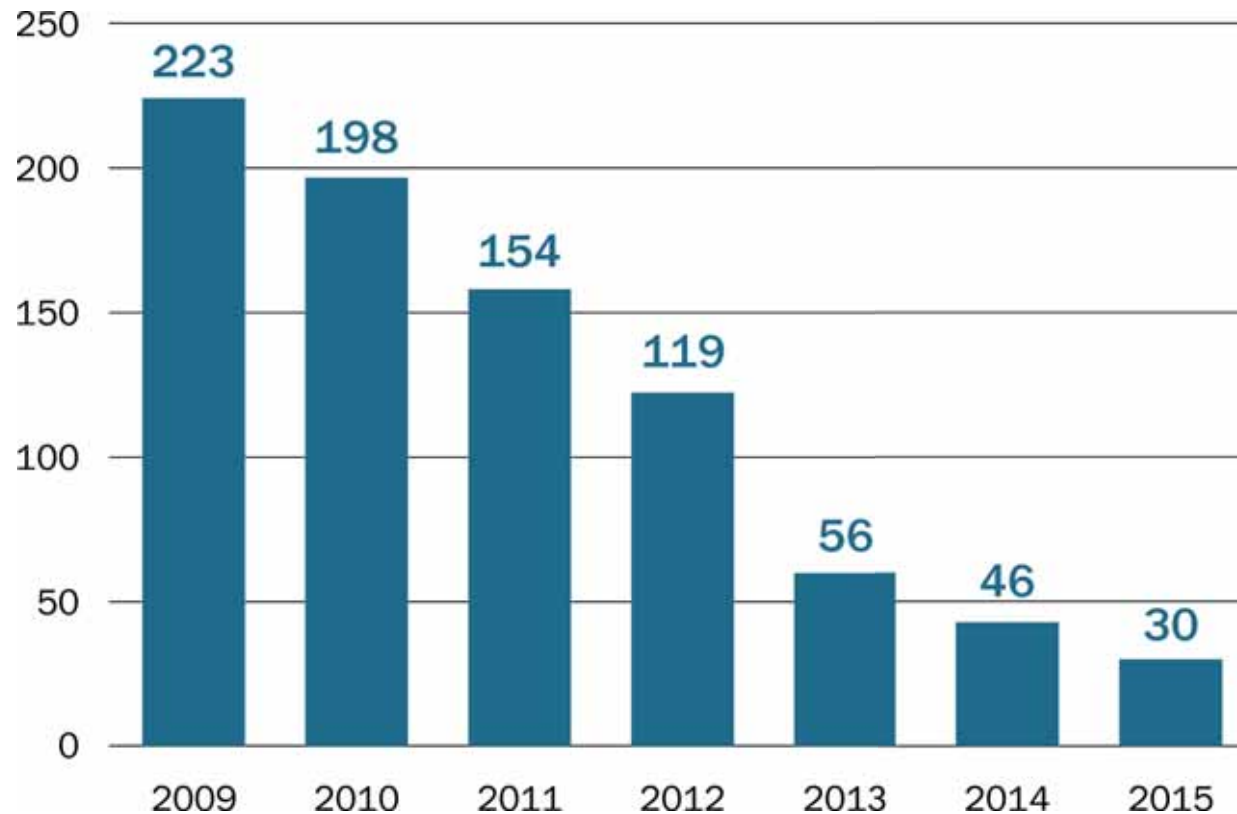
JV or franchises





BENEFITS TO CUSTOMERS/MARKETS — EXAMPLE QTL IPN

Incidence of IPN in farmed salmonids 2009–2011
(Veterinary Institute Norway)



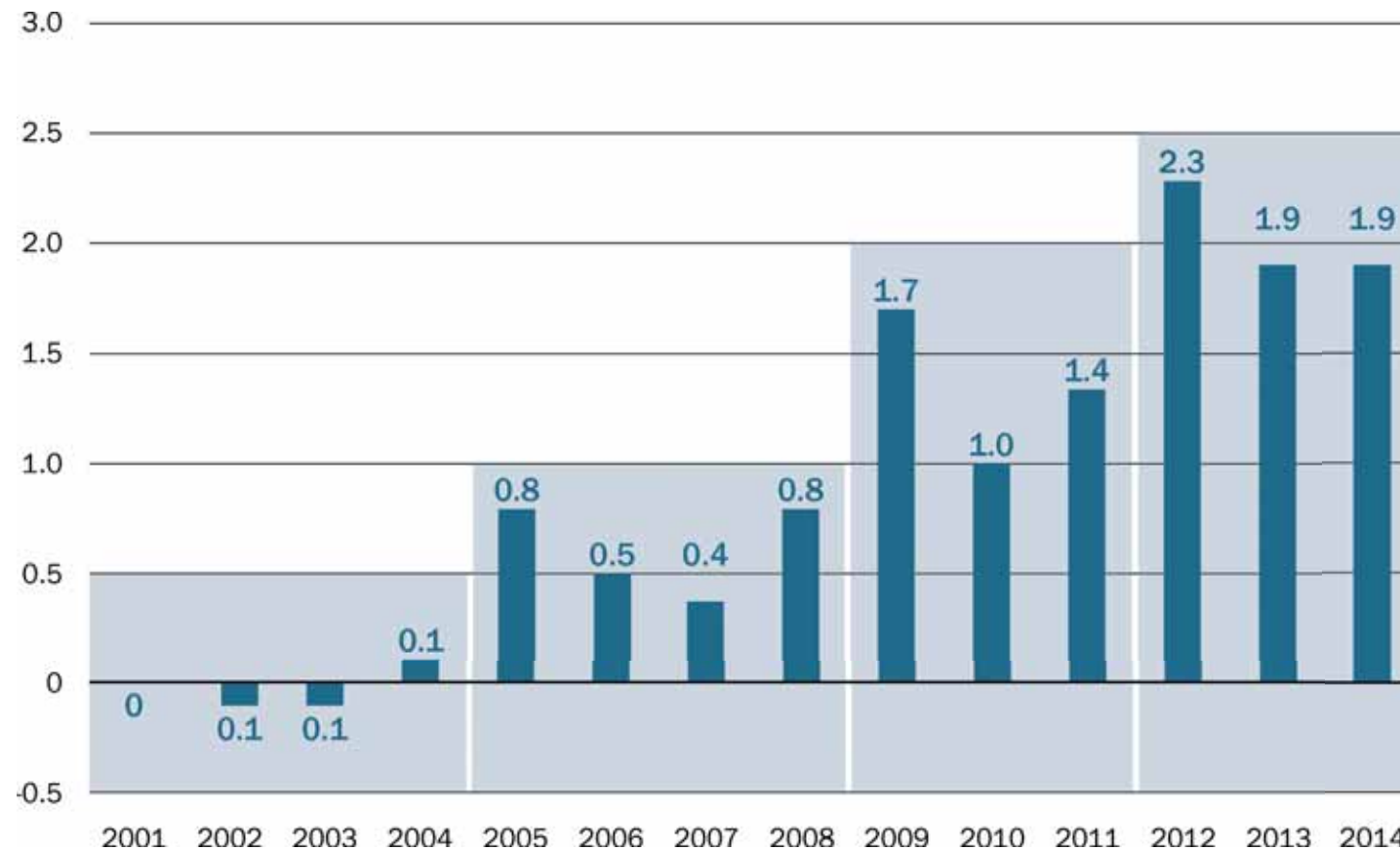
IPN was reduced
85% when QTL IPN
ova was introduced

Source: Veterinary Institute Norway
Figures for non-notifiable diseases are based on data
samples tested by the Norwegian Veterinary Institute



BENEFITS TO CUSTOMERS/MARKETS
— **EXAMPLE SLAUGHTER WEIGHT**

Slaughter weight increase over 2kg
in only 4 generations for SalmoBreed



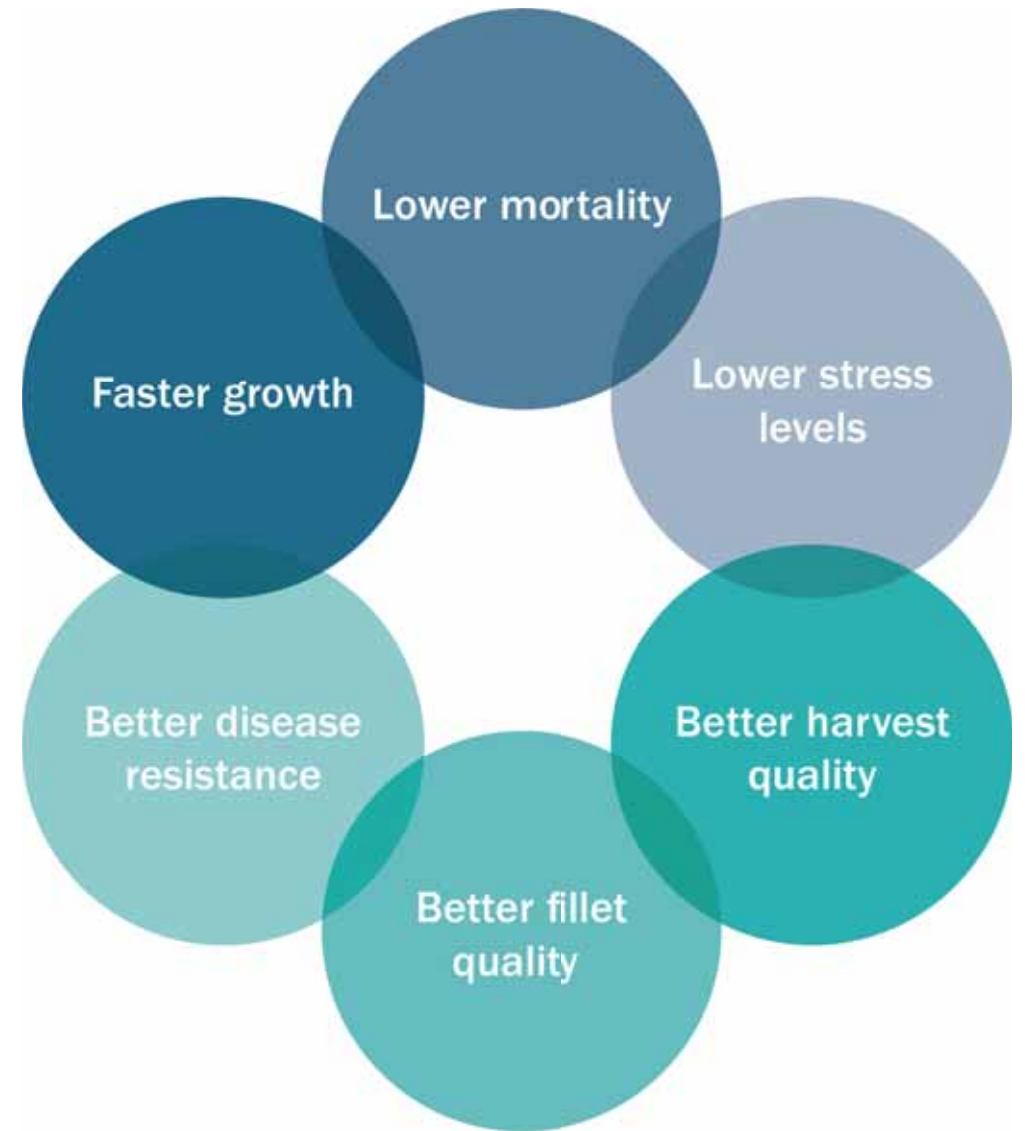


BENEFITS TO CUSTOMERS/MARKETS

Turning more production into
high value product

— excellent cost benefit ratio

Ability to create bespoke
solutions for clients





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**Healthy growth
drives efficiency**

John Marshall, Technical
Director Animal Health



WHAT DOES HEALTH MEAN FOR AQUACULTURE

A healthy animal delivers healthy growth

Disease and parasites are the largest restriction on the growth of Aquaculture.

Only limited progress has been made using conventional technologies

Benchmark has invested in new healthcare technologies to solve the major disease problems, allowing growth of established and emerging Aquaculture production species





STRATEGY

Harnessing best expertise

- Expert scientists
- Leading research collaborations widen the net for discovery

Deploying cutting edge technologies

- Improved products and lower production cost and time to market
- Optimised performance
- Enhanced delivery technologies

Embedded alongside our customers

- Integrated solution package
- Customer focused health plans enable buy-in to products throughout development

Image: Benchmark Vaccines, Braintree, UK

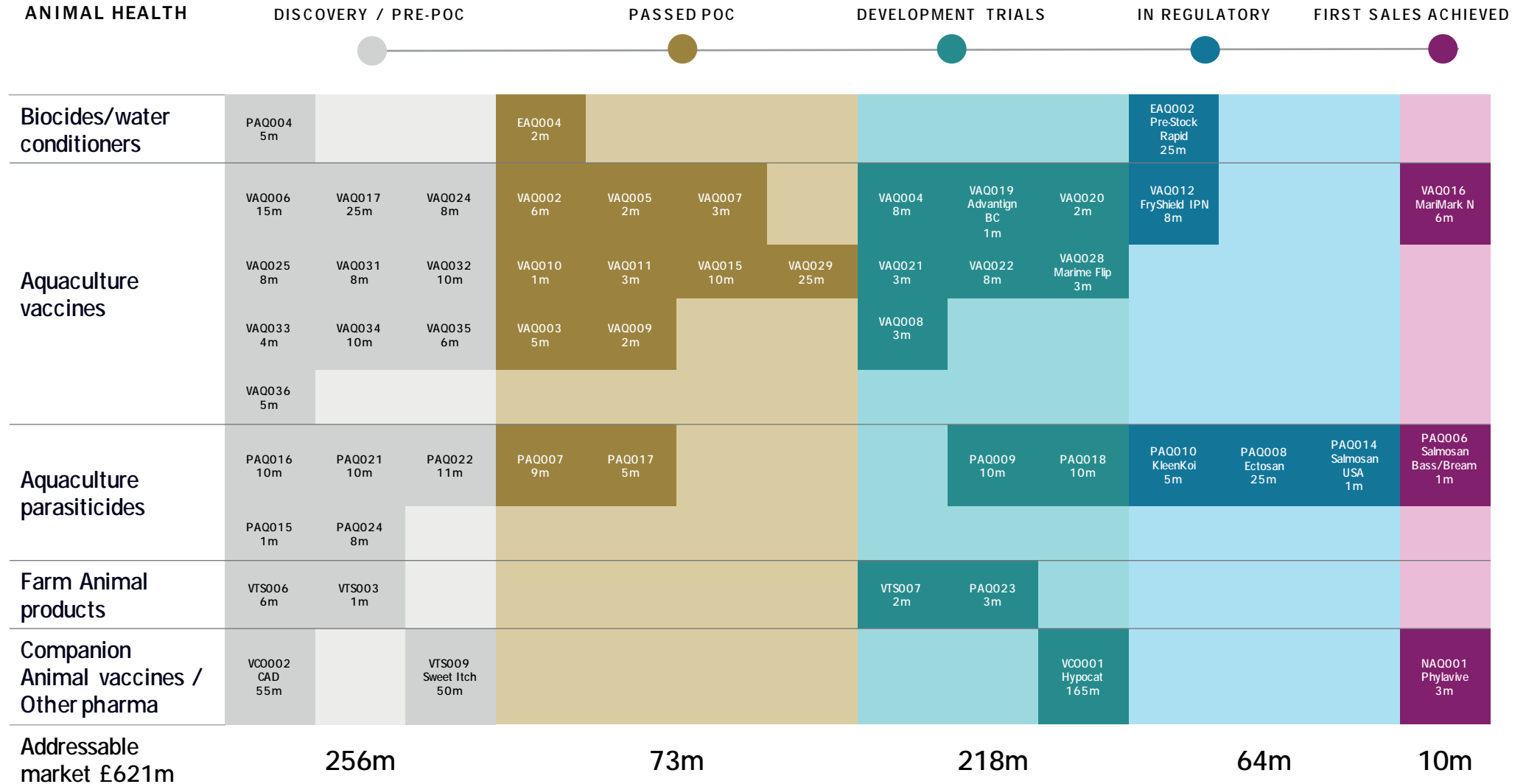




Health

COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

— EXPERTISE AND COLLABORATION

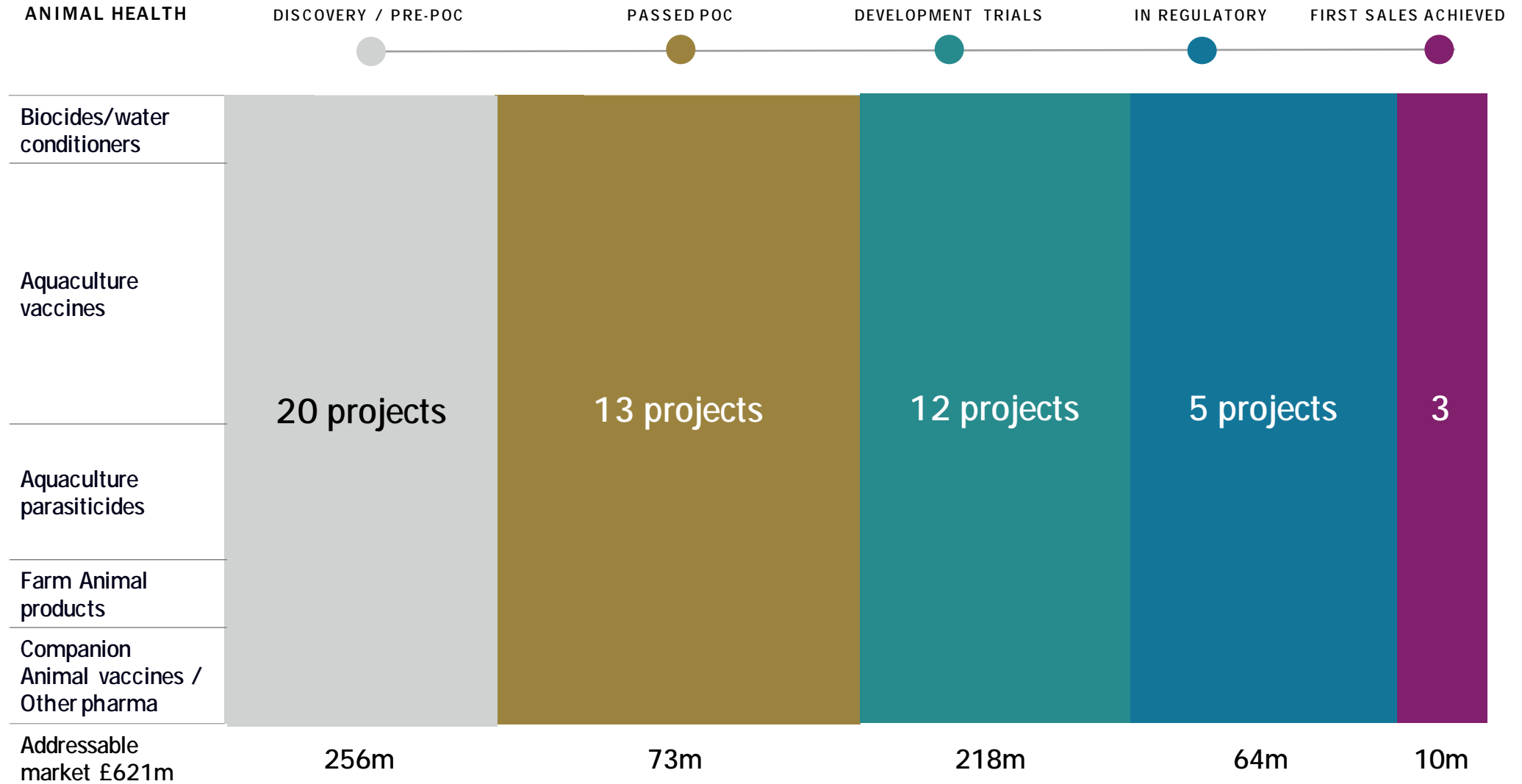




Health

COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

— EXPERTISE AND COLLABORATION





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

EXAMPLE: MARIMARK N

'First Sea Bass Noda virus vaccine'

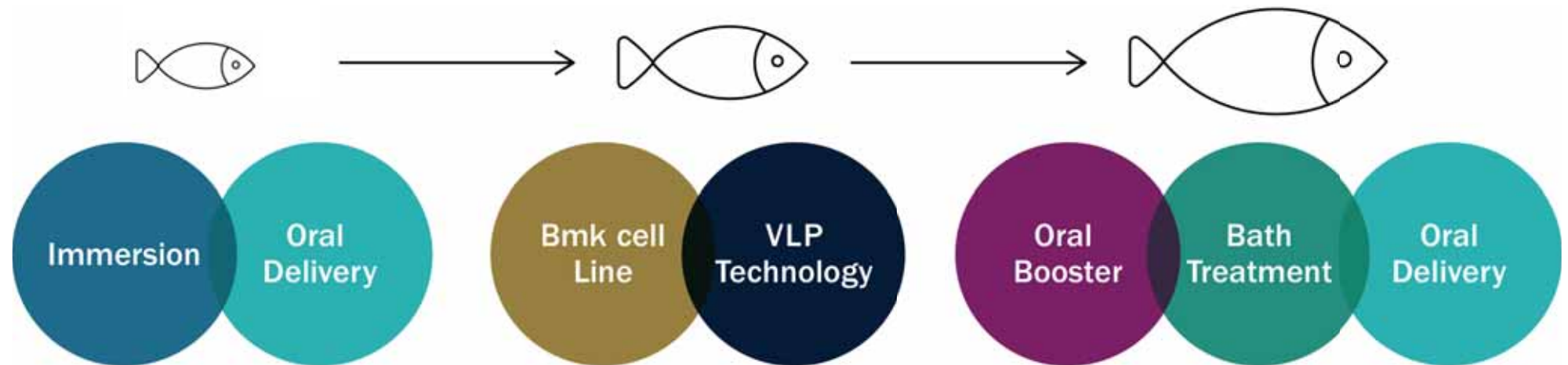
- Top disease affecting seabass production
- Produced with new BMK cell line
- Scope to extend this technology to other species
- Currently in commercial field trials, positive results
- MA
- *"There are more Sea Bass in Europe and Turkey than Salmon in Norway."*





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY — CUTTING EDGE TECHNOLOGIES CHANGE THE OPPORTUNITY

An example of what options the BMK healthcare technologies enables e.g. Sea Bass market



Disease	Stage of production affected	Development	Vaccine	Medicine
Noda Virus	Nursery, transfer, grow out	✓	MariMark N (injection)	Salmosan Vet (bath)
Vibriosis	Nursery, transfer, grow out	✓	MariMark NV (injection/immersion)	PAQ009 (oral)
Pasturellosis	Nursery, transfer, grow out	✓	MariMark NVP (injection/immersion/oral)	



COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

PRODUCT PIPELINE: ECTOSAN

'The new Sea lice treatment
'Class' with no environmental
impact

- Effective against ALL resistant sealice
- Fully contained treatment
- No environmental 'risk'
- API and final product manufacture secured





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

PRODUCT PIPELINE: PRESTOCK RAPID / SANOCARE PREP

'Most advanced pond preparation biocide'

- More efficacious than current treatments (predatory species and disease hosts)
- Faster action & reduced persistence increases production
- First targets Thailand, Vietnam, Ecuador
- Providing a pro-active solution to a more responsible industry





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

PRODUCT PIPELINE: MARIMARK STREP

Leading Streptococcus vaccine

- Streptococcus accounts for more fish deaths than any other disease
- Flexible product with both *S. agalactiae* & *S. iniae* serotypes covered
- Flexible offer by region
- KA approach with INVE key to rapid market penetration

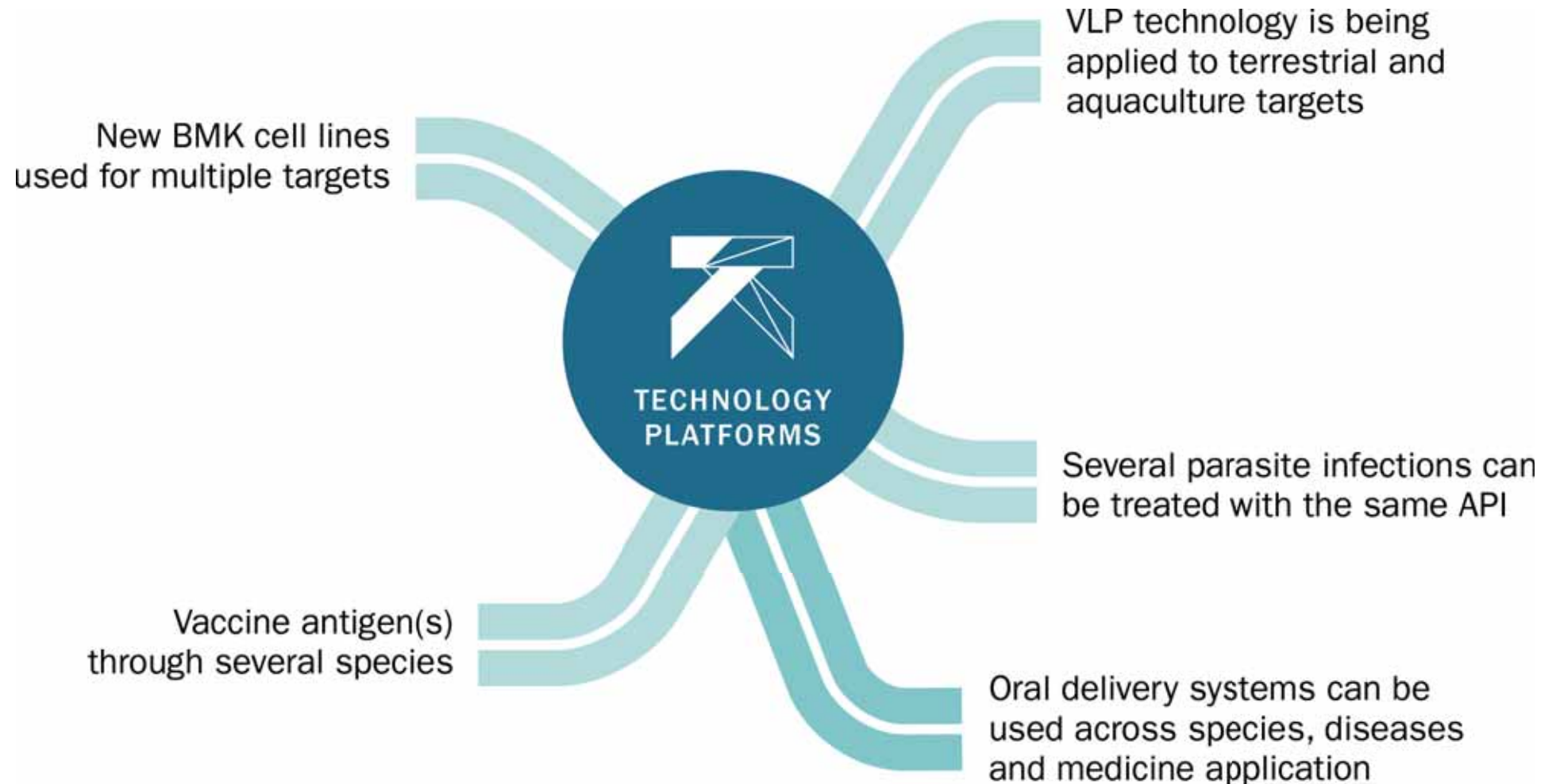


— Regional prevalence



COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY
— LEVERAGING THE TECHNOLOGIES

Technologies are transferable between species





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY CAPACITIES — LOCATION & FACILITIES

BVL Braintree provides Benchmark with manufacturing firepower

- Ultra-modern GMP (Good Manufacturing Practice)
- Seamless transition from R&D to production
- Combining both conventional and recombinant vaccines — including Virus Like Particles (VLP) — improves efficiency and flexibility
- Third party manufacturing options provides short-term utilisation



Image: Benchmark Vaccines, Braintree, UK





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**Caring for growth requires
optimal nutrition**

Philippe Legér,
CEO INVE Aquaculture



Advanced Nutrition

WHAT DOES **ADVANCED NUTRITION** MEAN FOR AQUACULTURE

Drives performance and consistency of successful aquaculture production

By knowing, understanding, and inducing key biological processes that unlock the innate potential of survivability, development and growth.

Our innovations have resulted in breakthroughs and continued improvements in performance in ever more challenging conditions

Nutrition and Health — Advanced Nutrition — go hand in hand in achieving this ... along with Genetics we will leap forward the advancements.





STRATEGY

Harnessing best expertise

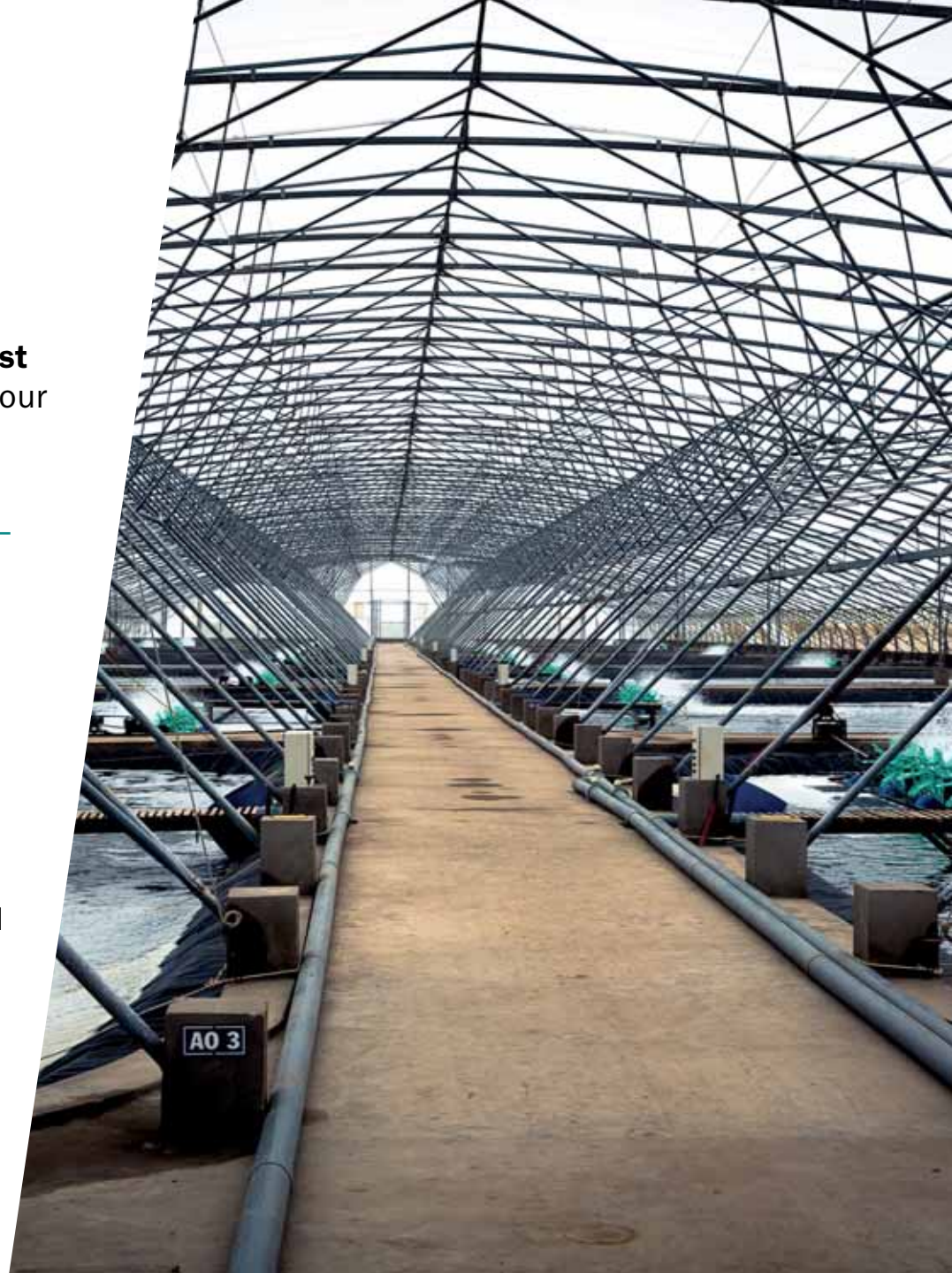
- For **creating** and **providing hi-tech, performing and cost effective** nutritional and health solutions and become our customer's **preferred partner**

Deploying cutting edge technologies

- INVE employs a **multidisciplinary** approach

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** along with the **best expertise** resulted in customer **loyalty** and **market leadership**





Advanced
Nutrition

COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

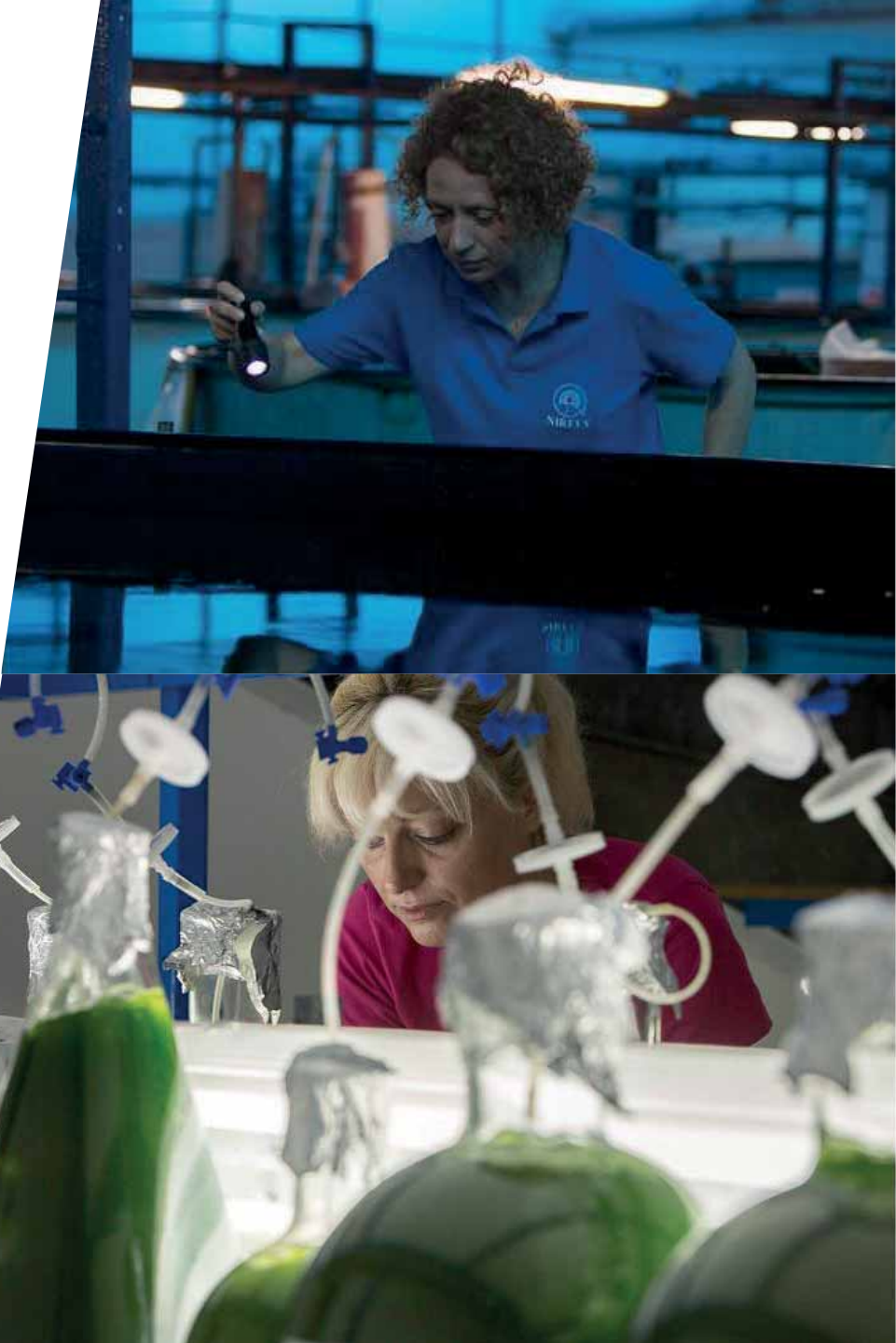
— INNOVATIVE LEADERSHIP

Distinctive competence:

—market driven, science based

- **Market intel** from the front line reveals **actual needs**
- 33 yrs of **in-house** expertise & **collaborations** with 25 centers of excellence
- Scientific **expertise** & '**hands in the water**' approach delivers bespoke solutions
- **Product Life Cycle Management** program encourages collaboration from **ideation** to **product delivery**

Images: INVE Aquaculture, Greece





Advanced
Nutrition

COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

— CUSTOMER PARTNERSHIP

Distinctive competence

— first line presence

- **Local** support and expert advice in all key markets
- Offering full & balanced product **portfolio**
- **Service** level agreements
- **Key Account** management
- **Tools** for CRM, market intel, marketing, knowledge-sharing platform
- Resulting in **long-term partnerships**





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

— OPERATIONAL EXCELLENCE

Distinctive competence

— Consistent quality and efficiency

- High-end products through **state-of-the-art manufacturing** equipment
- **Certified** manufacturing standards: GMP, HACCP, Global GAP
- Total quality management leading to **consistent high quality manufacturing**
- **Manufacturing Efficiency** resulting in hi-throughput, lower cost and shorter lead times
- **Efficient supply chain** resulting in reliable supply, lower inventories



Images: INVE Aquaculture, Thailand





Advanced
Nutrition

COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

— PEOPLE EXCELLENCE

Distinctive competence

– Strong team, strong culture

- Driven by longstanding and lived core values of **believing, enthusiasm, pragmatism and having fun**
- Bringing together **culturally diverse** teams seamlessly
- **Attracting and retaining** good people in a **learning organization**





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Nutrition

CAPACITIES — LOCATIONS AND FACILITIES INNOVATION

INVE Technologies, Belgium

- R&D HQ for AAN Division
- Central product development
- Management of collaborative R&D programs
- IPR office



Images: INVE Technologies, Belgium





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CAPACITIES — LOCATIONS AND FACILITIES INNOVATION

IARC, marine fish testing center, Italy

- **Real-scale testing** center for marine fish hatchery feeds & health products
- Developing **instructions for use**
- Developing feeding **protocols**
- **Training** center for staff and customers



Images: INVE Technologies, Italy





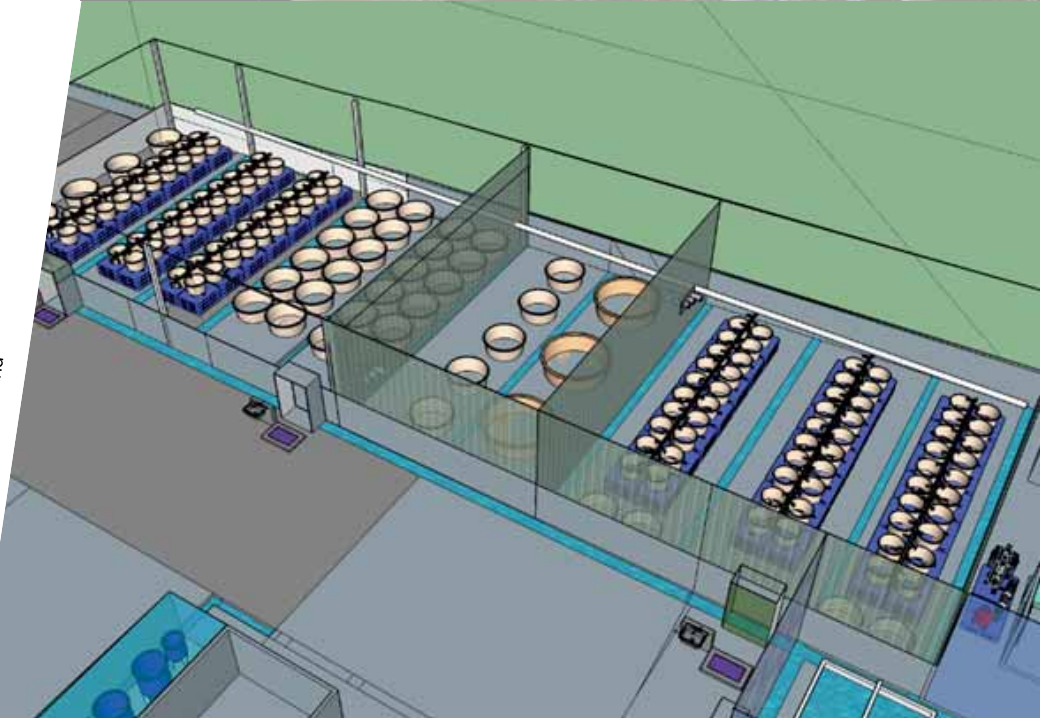
CAPACITIES — LOCATIONS AND FACILITIES INNOVATION

ITARC, shrimp testing center, Thailand

- **Real-scale testing** center for shrimp hatchery feeds & health products
- Developing **instructions for use**
- Developing feeding **protocols**
- **Training** center for staff and customers



Images: INVE Technologies, Thailand





CAPACITIES – LOCATIONS AND FACILITIES OPERATIONS AND SUPPLY CHAIN

INVE Aquaculture Inc., SLC, UT, U.S.A.

- **Artemia** harvesting & processing COOP SLB
- Feeds & Health products final processing for LATAM markets

- Production facilities
- Inventories

TIAC, Tianjin, China

- Probiotics formulating & mixing
- Artemia processing

INVE Thailand, Pichit, Thailand

- Main production center
- State-of-art facilities 2000
- Produces all INVE products





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BENEFITS TO OUR CUSTOMERS / MARKETS

INVE's shrimp hatchery feeds
drive consistency & profitability

*"Working with optimized protocols
gives us the stable results we need."*

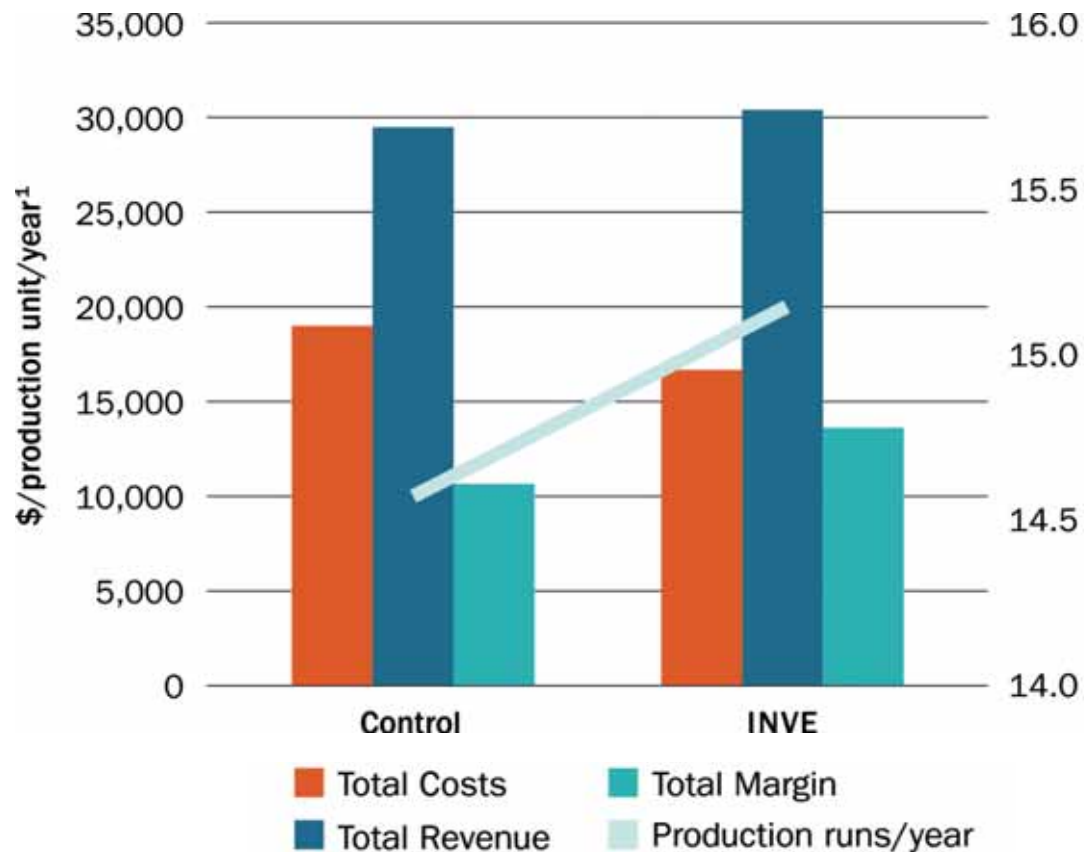
Fernando Marino Pinzón Miranda
Owner FITMAR, Mexico





BENEFITS TO OUR CUSTOMERS / MARKETS

INVE's shrimp hatchery feeds drive consistency & profitability



Absolute values (\$/production unit/year)			
Cost item		Protocol	
		Standard	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

Benefits for farmers using FRiPPAK feeds increased by 2,464 USD per million PLs produced.

¹a production unit produces 1 million PL10 per run



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BENEFITS TO OUR CUSTOMERS / MARKETS

INVE's probiotics drive profitability
in the shrimp nursery & farms:

*"Mastering the hatchery stage has
been the first step towards achieving
better grow-out results."*

Mr. Van Thanh Luong
CEO Viet-Uc Group, Vietnam

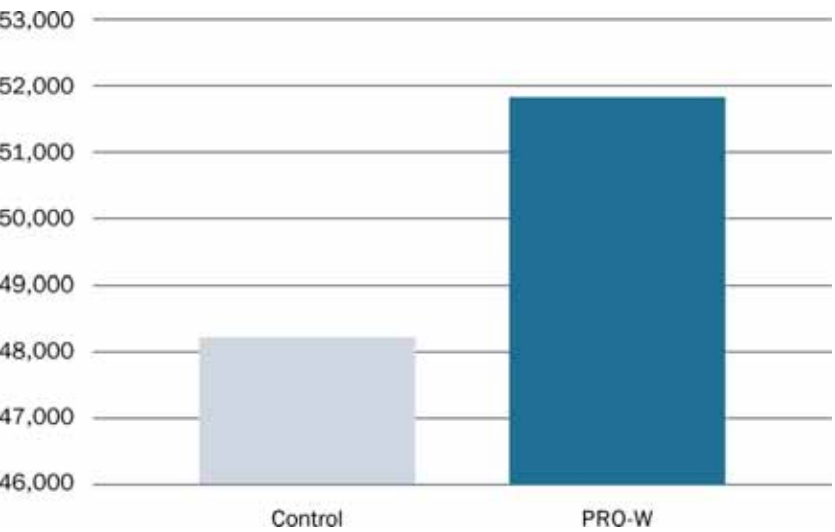





BENEFITS TO OUR CUSTOMERS / MARKETS

INVE's probiotics drive profitability
in the shrimp nursery & farms:

Benefit per 1 million PLs



Benefits for farmers using Sanolife PRO-W increased by
3,491 USD per million PLs produced.

	Sanolife PRO-w	Product A	Product B
Producer		Competitor A	Competitor B
Price per Kg	45 USD	35 USD	8 USD
Application	200g/ha	1,250g/ha	1,500g/ha
Price per application	9 USD/ha	43.75 USD/ha	12 USD/ha



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Nutrition

BENEFITS TO OUR CUSTOMERS / MARKETS

INVE's probiotics drive profitability
in Tilapia nursery & farms:

*"By controlling the entire value chain
from hatchery to processing and
marketing, we build our success on
rigorous product quality."*

Ramon Amaral
Executive director
Tilapia Ambar Amaral Group, Brazil





BENEFITS TO OUR CUSTOMERS / MARKETS

INVE's probiotics drive profitability
in Tilapia nursery & farms:

Fig 1. Growth rate of tilapia Sanolife PRO-F at
2g/Kg feed

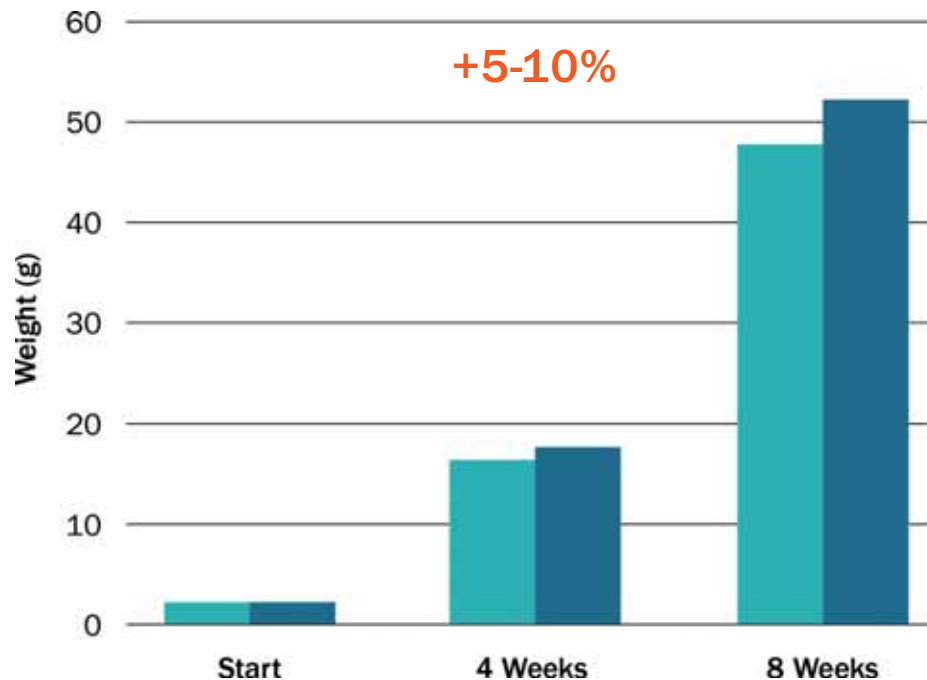
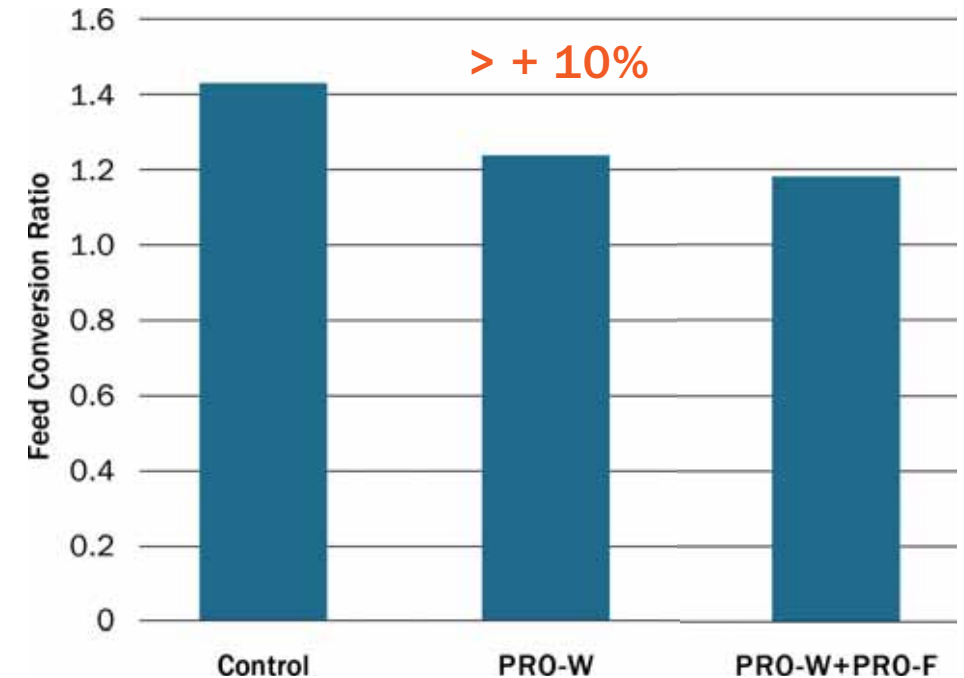


Fig 2. FCR in tilapia. Harvest after 180 days.
Sanolife PRO-W at 200g/Ha and Sanolife PRO-F
at 2g/Kg feed





BENEFITS TO OUR CUSTOMERS / MARKETS

INVE's probiotics drive profitability
in Tilapia nursery & farms:

Bacillus Probiotics Benefit Tilapia Rearing Under Challenging Conditions In Brazil



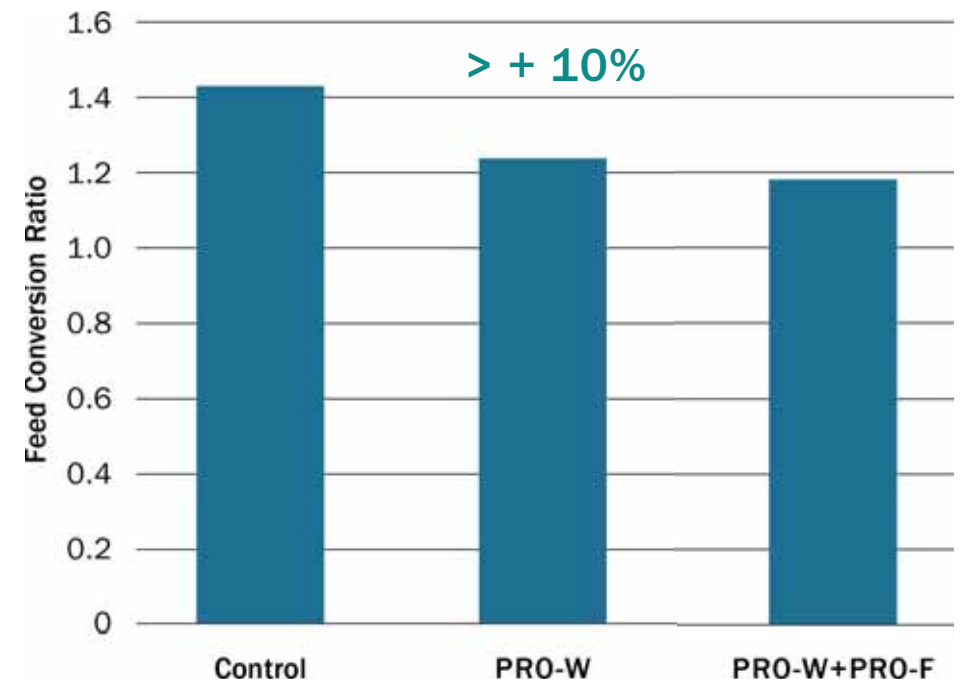
Camilo Diógenes
Marlon Aguiar
Jaburu Farm
Nova Jaguaribara, Ceará, Brazil

Bruno Urach
Pratigi Alimentos
Castro Alves, Bahia, Brazil

Marcos H. S. Santos
INVE Brazil Ltda.
Fortaleza, Ceará, Brazil

Olivier Decamp, Ph.D.
INVE Aquaculture
471 Bond Street
11120 Nonthaburi, Thailand
o.decamp@inveaquaculture.com

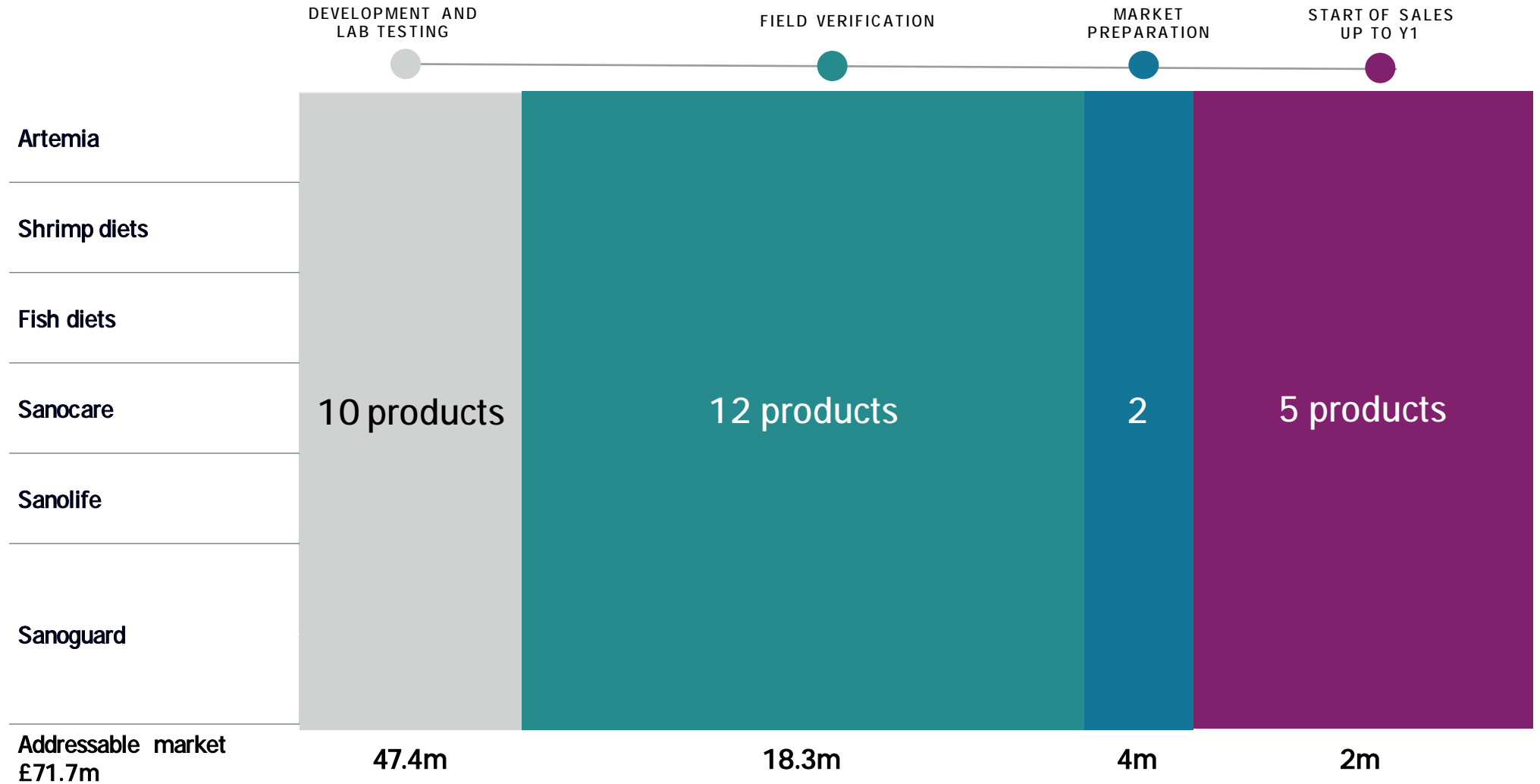
Fig 2. FCR in tilapia. Harvest after 180 days.
Sanolife PRO-W at 200g/Ha and Sanolife PRO-F
at 2g/Kg feed





COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

— STRONG PRODUCT PIPELINE



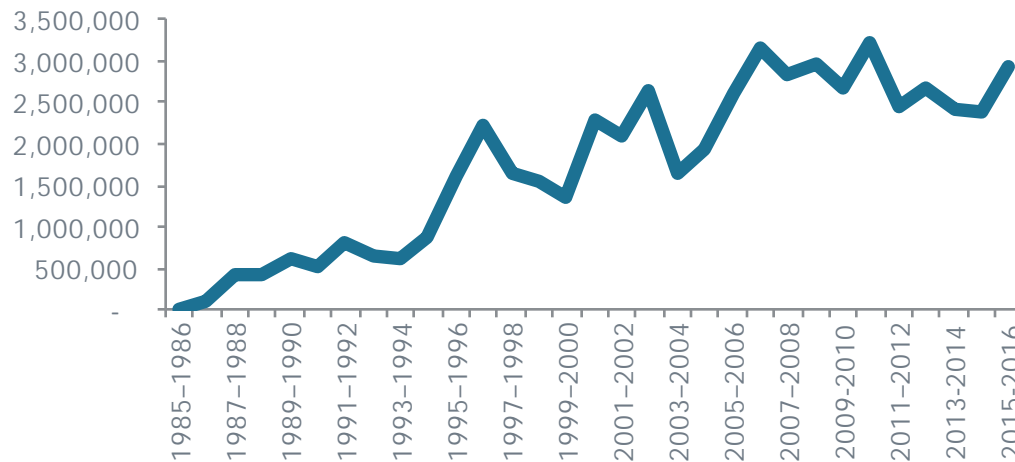


COMPETENCIES REQUIRED TO DELIVER OUR STRATEGY

— STRONG PRODUCT PIPELINE

ARTEMIA REPLACEMENT

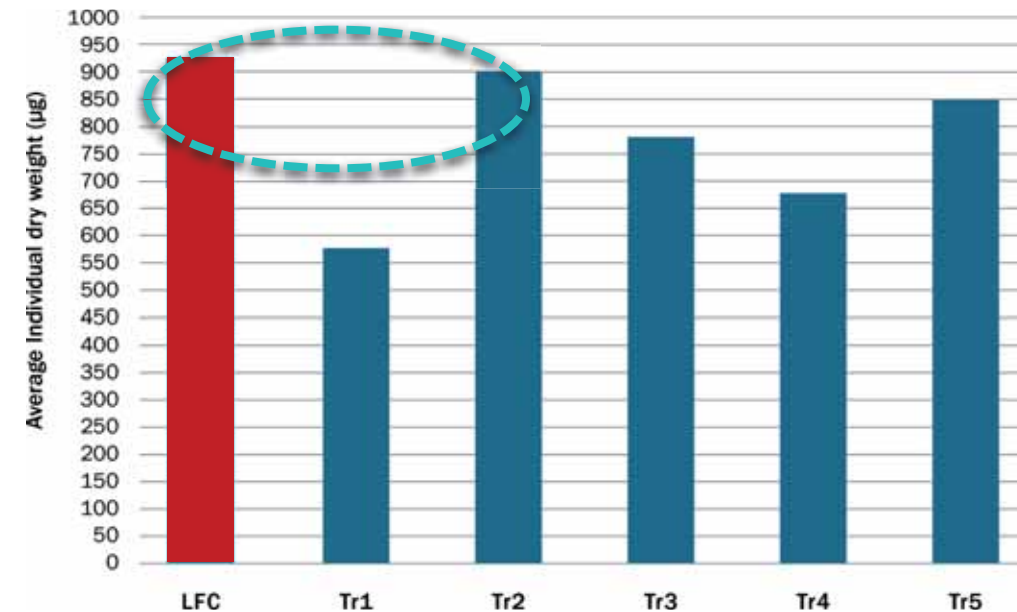
Historical data global artemia supply (kg)



- Global artemia resources fully tapped
- Increasing demand
- Need for artemia replacement
- **Today:** INVE Best Balance
- **Tomorrow:** FULL REPLACEMENT

Status R&D

- **Live Food Control (LFC)**
 - ✓ Artemia = 35% (3,5 kg/mioPL)
- **Test protocol**
 - ✓ Artemia = 5% (0,5 kg/mioPL)
+ 95% replacement diet





COMPETENCIES REQUIRED
TO DELIVER OUR STRATEGY

Market Leadership, fueled by:





Benchmark
Holdings plc

Mark Plampin,
Chief Financial Officer

PANEL 4

Financial model and capital structure

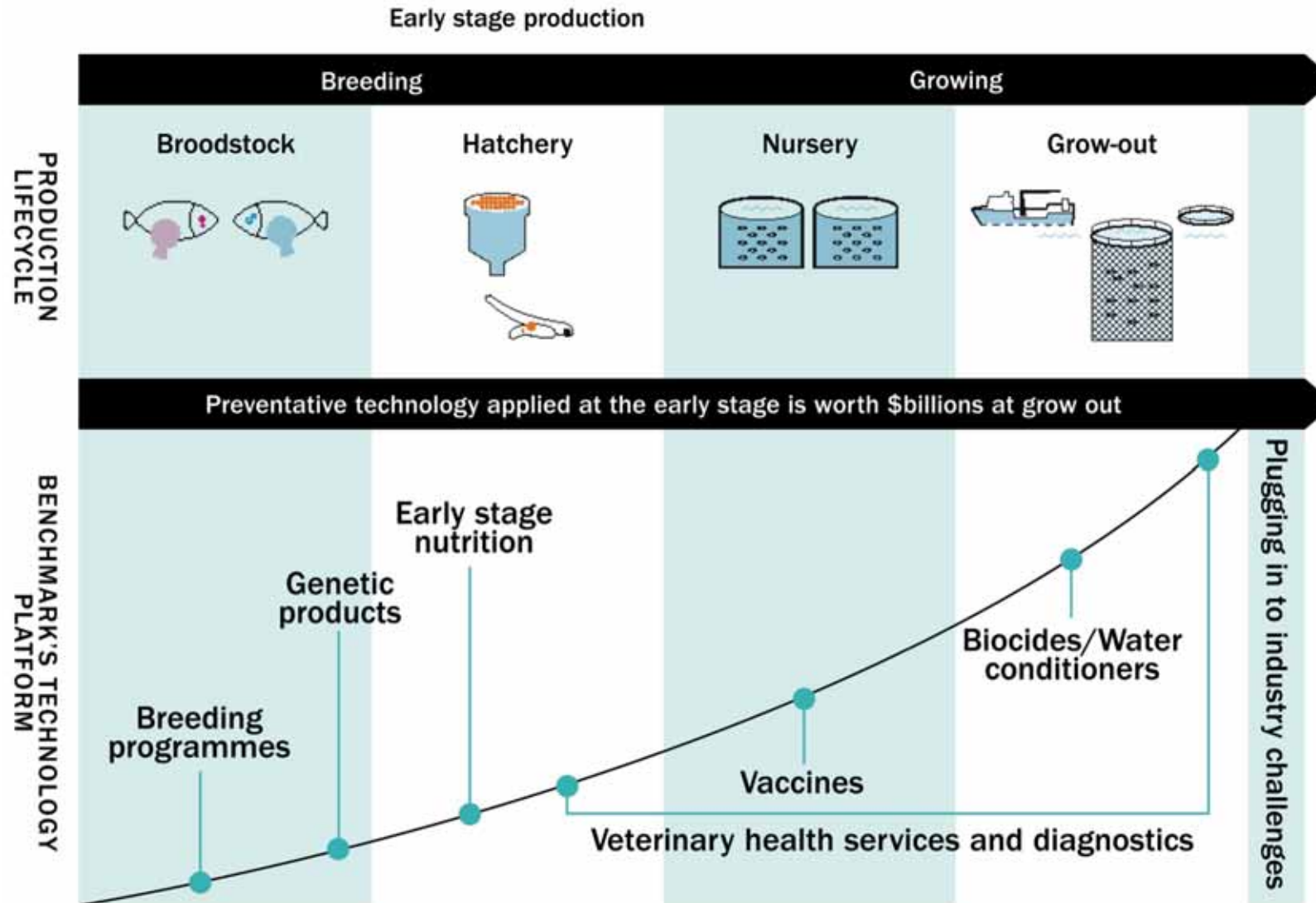


Image: Benchmark's Vaccine Manufacturing Facility, Braintree UK



FINANCIAL MODEL

Biological control is the key driver for financial performance of farmers



Example issues and scale of their economic impact on producers

\$4bn

Antibiotics use in aquaculture

\$1bn

Early mortality syndrome in shrimp

\$500m

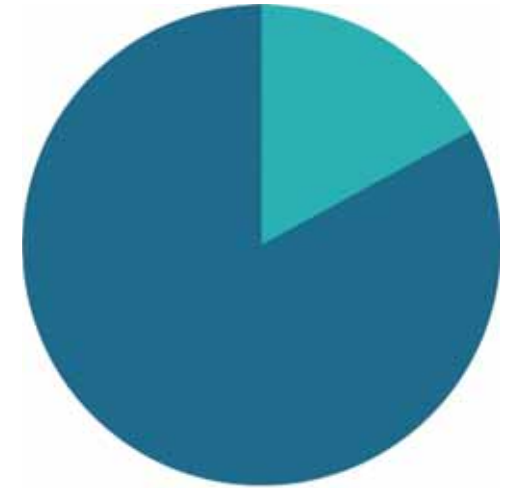
Seallice in salmon



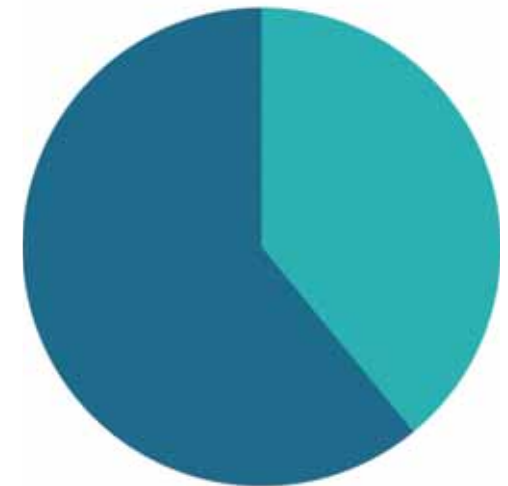
FINANCIAL MODEL – CUSTOMER ENGAGEMENT

- Direct engagement with customers in developed markets
- Trade through distributors in developing/ fragmented markets
- Good customer spread – top 20 customers account for around 50% of sales
- Key account management process is central to leveraging market position

Customer type by number of customers



Customer type by annual sales value



■ Direct ■ Distributor



FINANCIAL MODEL – CASH FLOW

- Gross margins typically 50% to 75%
- EBITDA margin progression expected:
 - FY17 consensus 10%
 - Long term (3 to 5 years) 20% to 25% through top line synergies and operating leverage
 - Further growth beyond this as rate of product launches increases
- EBITDA will increasingly convert to cash:
 - Short term Adjusted EBITDA to FCF* conversion rate c. 30% due to R&D
 - Working capital balances tend to grow in line with top line growth
 - Long term expected to be c. 60%



CAPITAL STRUCTURE

- IPO in 2013 to provide capital to invest in future revenue drivers
- Total cash raised from equity issued to date is £319m
- Revolving credit facility of \$70m in place since January 2016
- Current and future funding structure:
 - FY16 interims: Total equity and reserves £308m; Net Debt £15m; Leverage* 1.5x
 - Net Debt will rise short term as capital raised is deployed into investment projects
 - Expected organic growth will generate significant cash to repay debt within five years
 - Salten JV will be funded 60:40 debt to equity on ring fenced basis

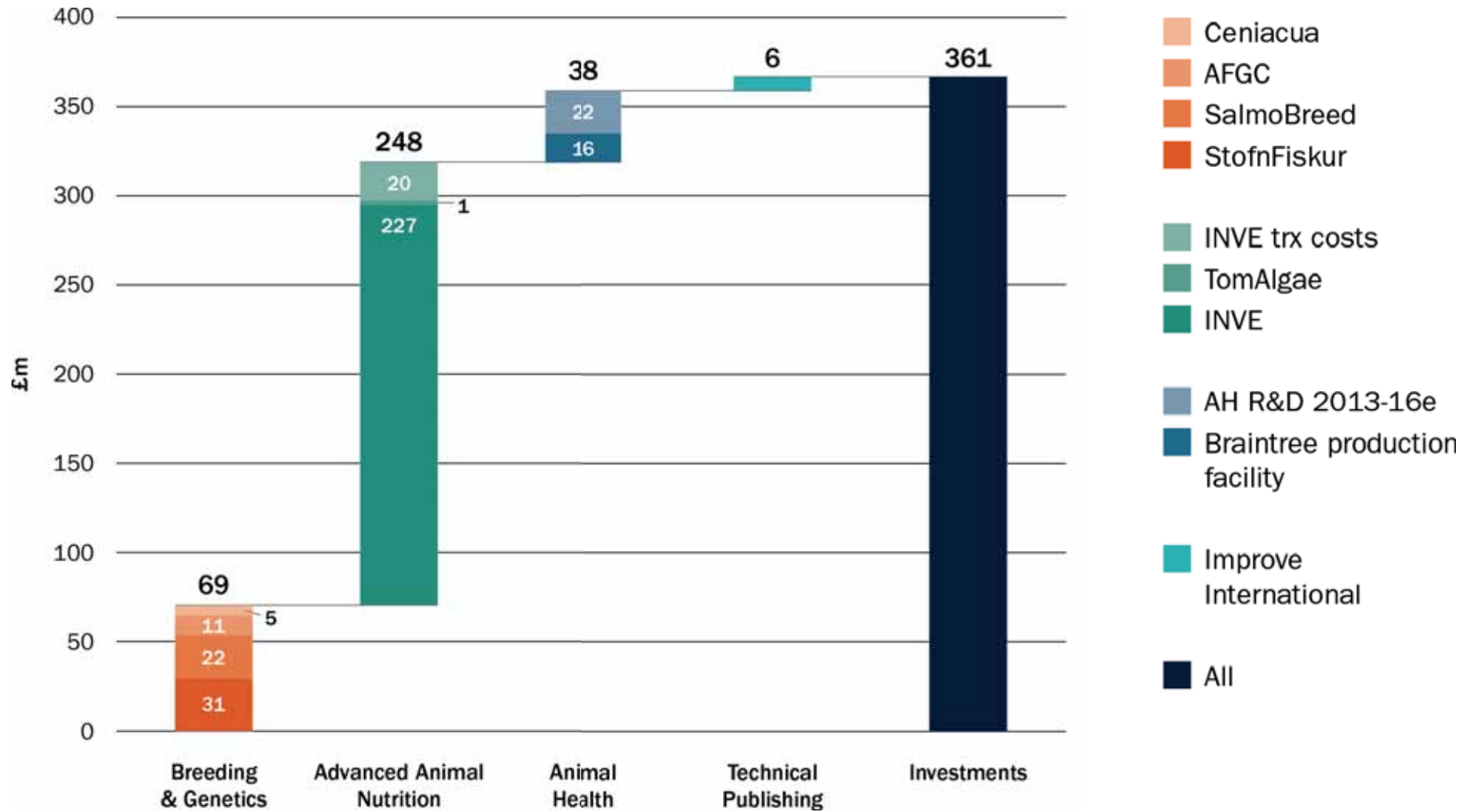


INVESTMENT APPROACH

- **Capital allocation process:**
 - annual budget and half year reforecast
 - 3 year strategic plans
 - investment appraisal and funding review approved by the board for all material projects
- **Business case including 10 year financial projections**
- **Benchmark's ROI approach:**
 - IRR above WACC
 - ROIC year 3 or 4 above WACC
- **Ongoing management and monitoring:**
 - Specific manager appointed to each project
 - Regular M&A integration report to Operations Board (division heads plus Exec)
 - Monthly report to board on integration and capital projects
 - Quarterly report to board on R&D projects



INVESTMENT APPROACH — LAST 3 YEARS FOCUS ON M&A AND R&D





INVESTMENT APPROACH

- Future investment:
 - M&A – focus on bolt-ons
 - R&D:
 - > 65% of R&D investment is in aquaculture
 - % of sales c. 12% FY16 & FY17 reducing to sub 10% long term
 - Production capacity:
 - focus on Breeding & Genetics / vaccines
 - ownership versus outsourcing



THE BENCHMARK INVESTMENT CASE

- **High growth markets** – significant exposure to emerging aqua industry and developing countries
- **High margin business** – focus on upstream parts of the value chain
- **Barriers to competition** – integrated supply chain, strong IP and market leading position
- **Scalable** – market leading aquaculture distribution network
- **First mover advantage** – demand pull from unique integrated genetics, health and nutrition
- **Catalyst for market growth** – Benchmark's solutions unlock production constraints and profitability



Benchmark
Holdings plc

PANEL 5

The Way Forward

Malcolm Pye,
Chief Executive Officer





THE ROAD MAP AND WAY FORWARD

Benchmark has built:

- The opportunity
- The platform
- The technology
- The team

To grow our sustainable business
and deliver sustainable
shareholder returns





Benchmark
Holdings plc

Benchmark is securing our
position at the heart of the blue
revolution — **driving shareholder
value as the industry grows**





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