GLOBALG.A.P.
The Global Partnership for Safe and Sustainable Agriculture

Introductory Webinar for Integrated Farm Assurance (IFA) Version 6 for Aquaculture

AQUACULTURE

Certifying safe and responsible farming around the world


G.A.P. STANDS FOR
GOOD AGRICULTURAL PRACTICES
AND GLOBALG.A.P. SETS THE
STANDARDS THAT ASSURE THEM.
GLOBALG.A.P.
The Global Partnership for Safe and Sustainable Agriculture

We're a global organization with a crucial objective:

SAFE, SUSTAINABLE AGRICULTURE WORLDWIDE

We set voluntary standards for the certification of agricultural production processes around the globe – and more and more producers, suppliers, and buyers are harmonizing their certification standards to match.

Putting food safety, sustainability, and the environment in the hands of producers.

GLOBALG.A.P.

THE GLOBALG.A.P. AQUACULTURE STANDARD

COMPOUND

HATCHERY

GROW-OUT

HARVEST

POST-HARVEST

GLOBALG.A.P. Compound Feed Manufacturing Standard

GLOBALG.A.P. Aquaculture Standard

SUPPORTING THE AQUACULTURE SECTOR SINCE 2004

37 SPECIES FROM CERTIFIED PRODUCTION

32 FINFISH SPECIES AVAILABLE FROM CERTIFIED PRODUCTION[1]

Adriatic Sturgeon	*[Acipenser naccarii]*
Arctic Char	*[Salvelinus alpinus]*
Asian Bronze Featherback	*[Notopterus notopterus]*
Atlantic Cod	*[Gadus morhua]*
Atlantic Halibut	*[Hippoglossus hippoglossus]*
Atlantic Salmon	*[Salmo salar]*
Barramundi	*[Lates calcarifer]*
Bluespotted Seabream	*[Pagrus caeruleostictus]*
Brook Trout	*[Salvelinus fontinalis]*
Brown Trout	*[Salmo trutta]*
Cobia	*[Rachycentron canadum]*
Coho Salmon	*[Oncorhynchus kisutch]*
Common Dentex	*[Dentex dentex]*
European Seabass	*[Dicentrarchus labrax]*
Gilthead Seabream	*[Sparus aurata]*
Greater Amberjack	*[Seriola dumerili]*
Meagre	*[Argyrosomus regius]*
Pangasius Tra	*[Pangasianodon hypophthalmus]*
Pink Dentex	*[Dentex gibbosus]*
Rainbow Trout	*[Oncorhynchus mykiss]*
Red Drum	*[Sciaenops ocellatus]*
Red Porgy	*[Pagrus pagrus]*
Red Seabream	*[Pagrus major]*
Russian Sturgeon	*[Acipenser gueldenstaedtii]*
Senegalese Sole	*[Solea senegalensis]*
Sharpsnout Seabream	*[Diplodus puntazzo]*
Shi Drum	*[Umbrina cirrosa]*
Starry Sturgeon	*[Acipenser stellatus]*
Sterlet Sturgeon	*[Acipenser ruthenus]*
Turbot	*[Scophthalmus maximus]*
White Grouper	*[Epinephelus aeneus]*
Yellowtail Kingfish	*[Seriola lalandi]*

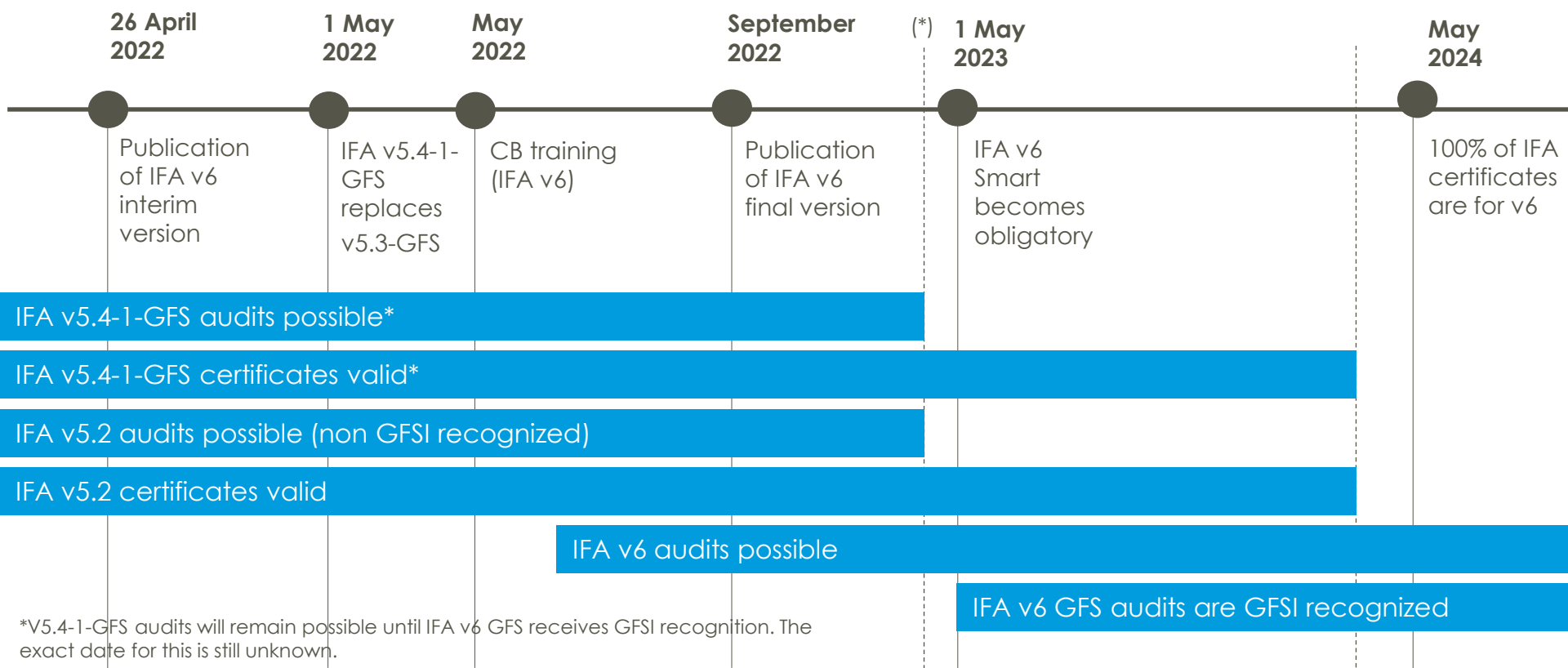
5 CRUSTACEANS & MOLLUSCS SPECIES AVAILABLE FROM CERTIFIED PRODUCTION[1]

Blue Mussel	*[Mytilus edulis]*
Pacific Cupped Oyster	*[Crassostrea gigas]*
Mediterranean Mussel	*[Mytilus galloprovincialis]*
Giant Tiger Prawn	*[Penaeus monodon]*
Whiteleg Shrimp	*[Litopenaeus vannamei]*

New species added in the last two years:

- Arctic char
- Atlantic cod
- Flathead grey mullet
- Hybrid striped bass
- South African abalone

WHAT IS THE TRANSITION PERIOD FROM IFA V5 TO V6? (aquaculture



*V5.4-1-GFS audits will remain possible until IFA v6 GFS receives GFSI recognition. The exact date for this is still unknown.

WHAT'S NEW IN VERSION 6?

GLOBALG.A.P.
The Global Partnership for Safe and Sustainable Agriculture

IFA V6

Aquaculture World Consultation Tour

- 14 webinars covering all continents
- 21 hours
- 150 stakeholders
- 4 languages
- 485 comments

WHAT'S NEW IN IFA V6 FOR AQUACULTURE?

- Overall upgrade of the **holistic approach**
  - Increased **environmental sustainability**
  - Increased **animal health and welfare**
  - Increased **workers' well-being**

- **Streamlined, outcome-oriented**, and **customized** checklists

THANK YOU!
AQUACULTURE TECHNICAL COMMITTEE

Chairperson: Andy Gourlay/Scottish Sea Farms
Vice-chairperson: Teresa Fernandez/Hilton Seafood UK
Board liaison: Martin Hofstede/Clama GmbH & Co. KG
GLOBAL.G.A.P. Secretariat: Valeska Weymann

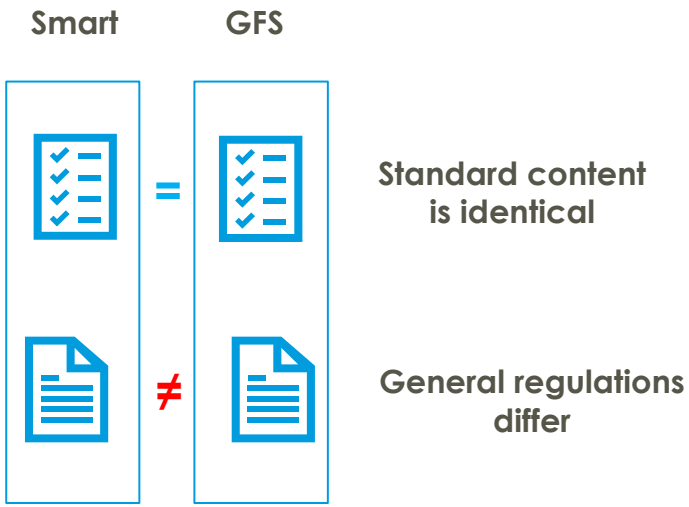
Name	Company	Country
Francisco Ascaso	Eroski	Spain
Lukasz Dragunowicz	Milarex	Poland
Teresa Fernandez	Hilton Seafood UK	United Kingdom
Andy Gourlay	Scottish Sea Farms	United Kingdom
Randi Norstoga Haldorsen	MOWI	Norway
Taru Spring	Kesko Corporation	Finland
Marlene Timm	ALDI SOUTH Group	Austria
Ben Weis	Tesco	United Kingdom

Observers: Zoetis/Terje Tingbo, Norway
Bureau Veritas/Oscar Vidal, Spain

IFA V6 FOR AQUACULTURE

Two parallel editions

IFA v6 is available in two editions: **IFA v6 Smart and IFA v6 GFS**



IFA v6 Smart is our flagship standard designed for all producers regardless of size and location and for circumstances where GFSI rules are not appropriate.

IFA v6 GFS is for producers who require GFSI recognition.

COMPOUND FEED MANUFACTURING STANDARD

Version 3 released 15 December 2021

GlobalGAP tightens feed standard rules

Feed manufacturers certified under the GlobalGAP standard will have to meet stricter criteria for fishmeal, fish oil and soy if they want to keep the certification.

Source: Fishfarmingexpert

THANK YOU!
COMPOUND FEED MANUFACTURING FOCUS GROUP

Neil Auchterlonie	Consultant (Representing IFFO)	United Kingdom
Jil Bohmfalk	Köster Marine Proteins GmbH	Germany
Ian Carr	Veramaris	UK
Fabio Cervellione	DSM	Switzerland
Karina De Leon	Cargill	Guatemala
Erik Olav Gracey	Biomar AS	Norway
Ellinor Helland	Biomar AS	Norway
Trygve Berg Lea	Skretting/Nutreco	Norway
Paul Morris	MOWI	Norway
Sanna i Tuni Nielsen	Havsbrun	Faroe Islands
Sergiy Pokhyla	Goodvalley	Ukraine
Marco Scolari	Nutreco	Italy

COMPOUND FEED MANUFACTURING STANDARD

Version 3 released 15 December 2021

Main changes

- Sustainability of feed production
- Workers' health, safety, and welfare
- Responsible sourcing of raw materials:

  Sourcing of fish meal and fish oil
  - 60% GSSI, Marine Trust, Fishery Improvement Project (FIP)
  - 2025 → 75%

  FEFAC soy sourcing guidelines
  - 75% aquaculture
  - 100% salmonids

  Palm oil products
  - 100% RSPO certified

Source: Fishfarmingexpert

GLOBALG.A.P. CERTIFICATION FOR AQUACULTURE

Seaweed (macroalgae) added to product scope

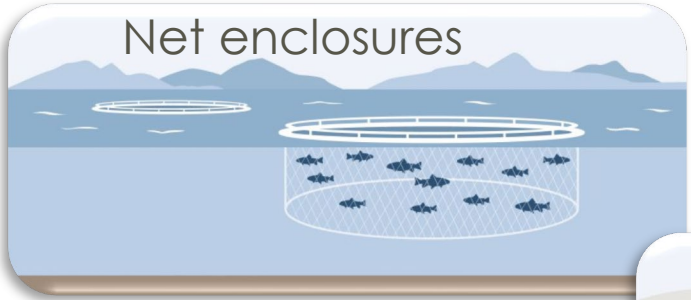
Available for:

- Finfish
- Crustaceans
- Molluscs
- **NEW: seaweed (macroalgae)**

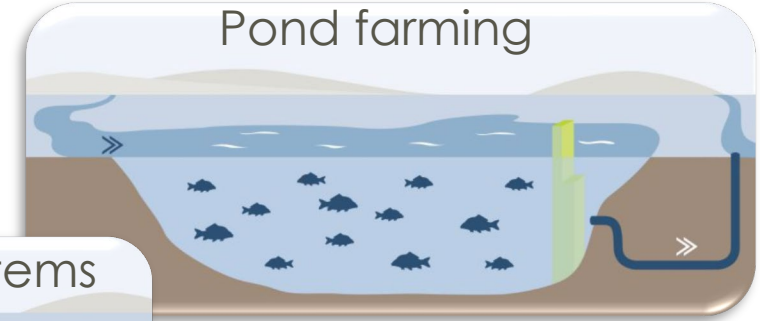
GLOBALG.A.P. CERTIFICATION FOR AQUACULTURE

Available for all types of production systems

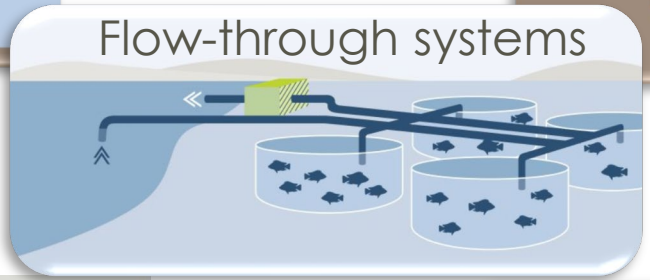
Net enclosures



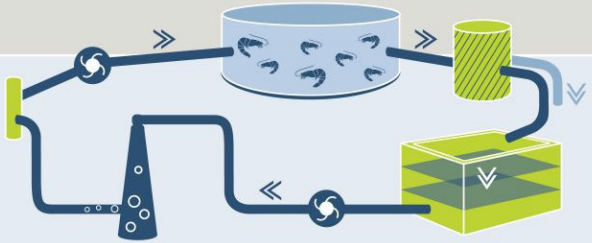
Pond farming



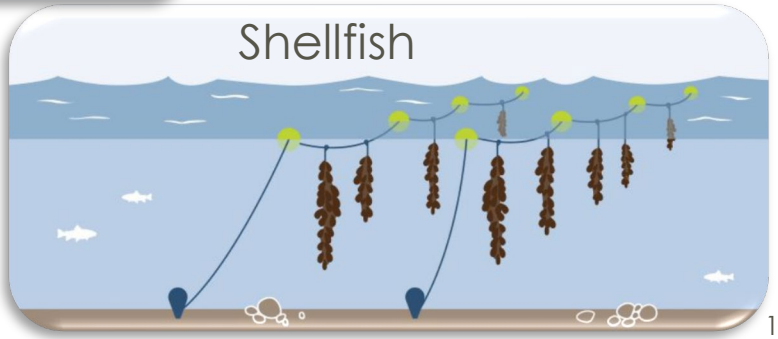
Flow-through systems



Closed recirculation systems



Shellfish



Sections:

Integrated Farm Assurance version 6 for aquaculture

AQUACULTURE – Finfish, Crustaceans, Molluscs, Seaweed v6
Contents

Sections

SECTIONS

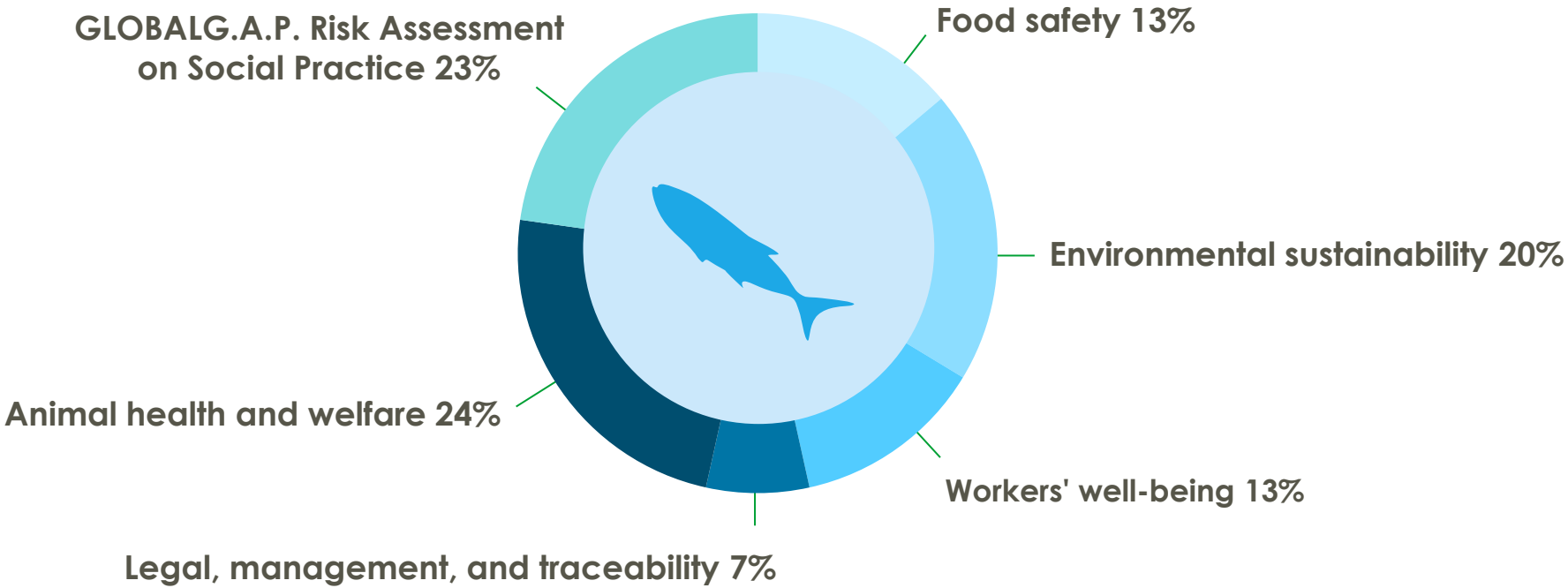
Integrated Farm Assurance version 6 for aquaculture

AQ 17	SPECIFICATIONS, NON-CONFORMING PRODUCTS, AND PRODUCT RELEASE AT THE FARM
AQ 18	REPRODUCTION *This section provides the additional criteria applicable specifically to hatcheries, when covered under the certificate.*
AQ 19	CHEMICAL COMPOUNDS
AQ 20	FARMED AQUATIC SPECIES WELFARE, MANAGEMENT, AND HUSBANDRY (at all points of the production chain)
AQ 21	SAMPLING AND TESTING OF FARMED AQUATIC SPECIES
AQ 22	FEED MANAGEMENT
AQ 23	PEST CONTROL
AQ 24	HARVESTING AND POST-HARVESTING OPERATIONS
AQ 25	HOLDING AND CROWDING FACILITIES
AQ 26	SLAUGHTER ACTIVITIES
AQ 27	DEPURATION
AQ 28	POST HARVEST - MASS BALANCE AND TRACEABILITY

GUIDELINE AQ I	Examples of Environmental Impact Assessment (EIA), Environmental Risk Assessment (ERA), and Respective Environmental Management Plans (EMPs)
GUIDELINE AQ II	Biodiversity in Environmental Impact Assessment
GUIDELINE AQ III	Environmental Parameters of Relevance Based on the Aquaculture System Used and AQ III Glossary
GUIDELINE AQ IV	The Ramsar Convention on Wetlands

IFA V6 FOR AQUACULTURE STANDARD CONTENT

Principles and criteria (*)



*Excluding postharvest section AQ 28

THE GLOBALG.A.P. SOLUTION

IFA aquaculture industry recognition

- Only aquaculture certification standard at farm level recognized by **GFSI (Global Food Safety Initiative)**

- Only aquaculture certification standard recognized by **GSSI (Global Sustainability Seafood Initiative)** for all species of finfish, crustaceans, molluscs, and seaweed

Referenced at all times:

- Technical Guidelines on Aquaculture Certification – **FAO (Food and Agriculture Organization of the United Nations)**
- Aquatic Animal Health Code – **OIE (World Organisation for Animal Health)**
- Standard implementation contributes to the **United Nations Sustainable Development Goals**

THE GLOBALG.A.P. SOLUTION

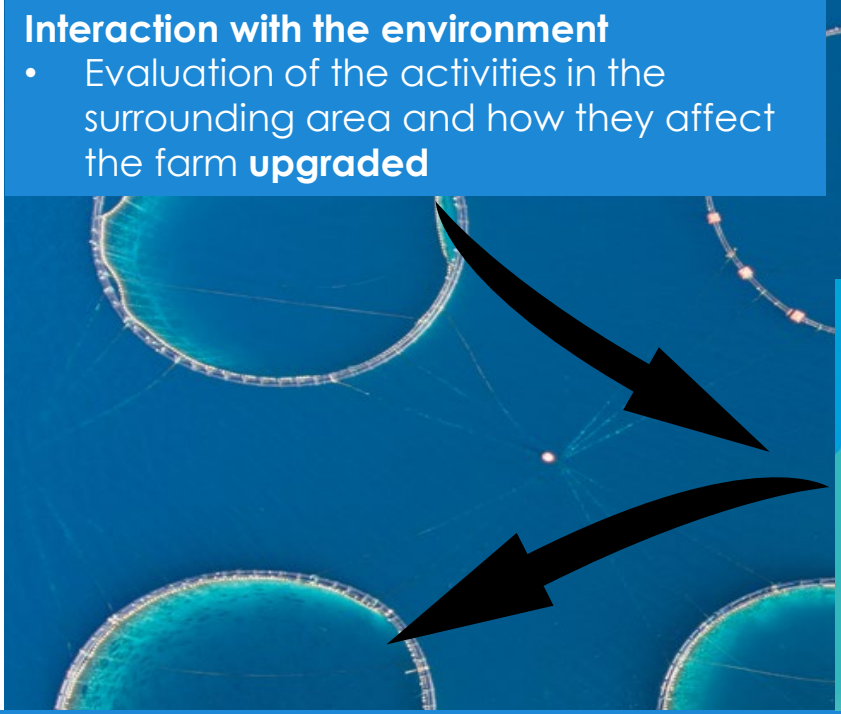
Considers the four pillars of the FAO Technical Guidelines

FAO Technical Guidelines on Aquaculture Certification

Food safety	Animal health and welfare	Environmental integrity	Socioeconomic aspects
Only scheme recognized by GFSI for aquaculture at farm level	Covers the OIE Aquatic Animal Health Code requirements	Recognized by GSSI for all species in the GLOBALG.A.P. product list	GLOBALG.A.P. Risk Assessment on Social Practice is a mandatory part of IFA for aquaculture

Interaction with the environment

- Evaluation of the activities in the surrounding area and how they affect the farm **upgraded**



COMPOUND FEED

Higher level of responsible sourcing of raw materials with special requirements for fish meal/fish oil and soya

In IFA for aquaculture v6: Updated requirements on the reporting of the feed conversion ratio (FCR) to evaluate the best use of resources as well as the **percentage and origin** of fish meal/oil used in the compound feed

HATCHERY

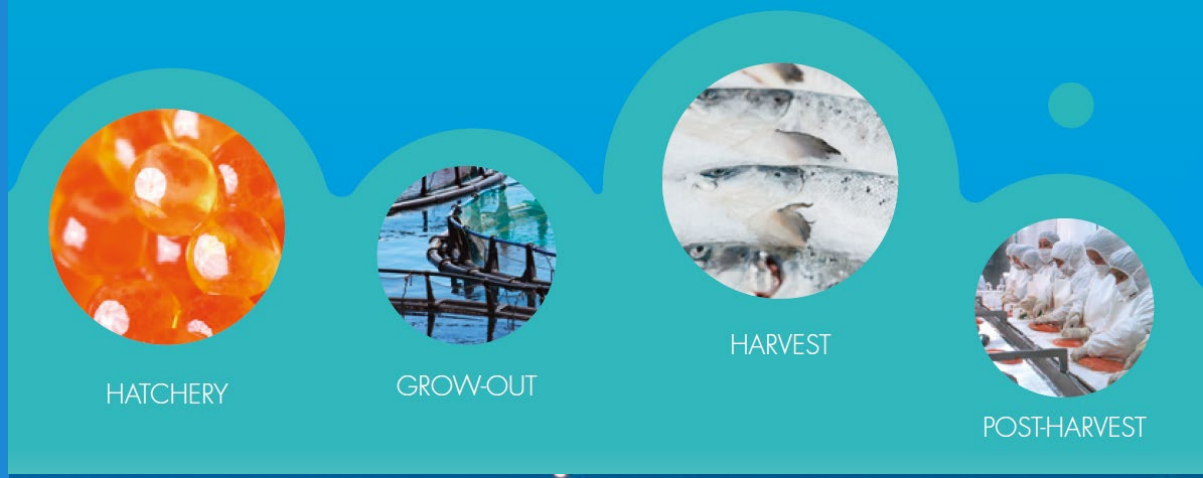
GROW-OUT

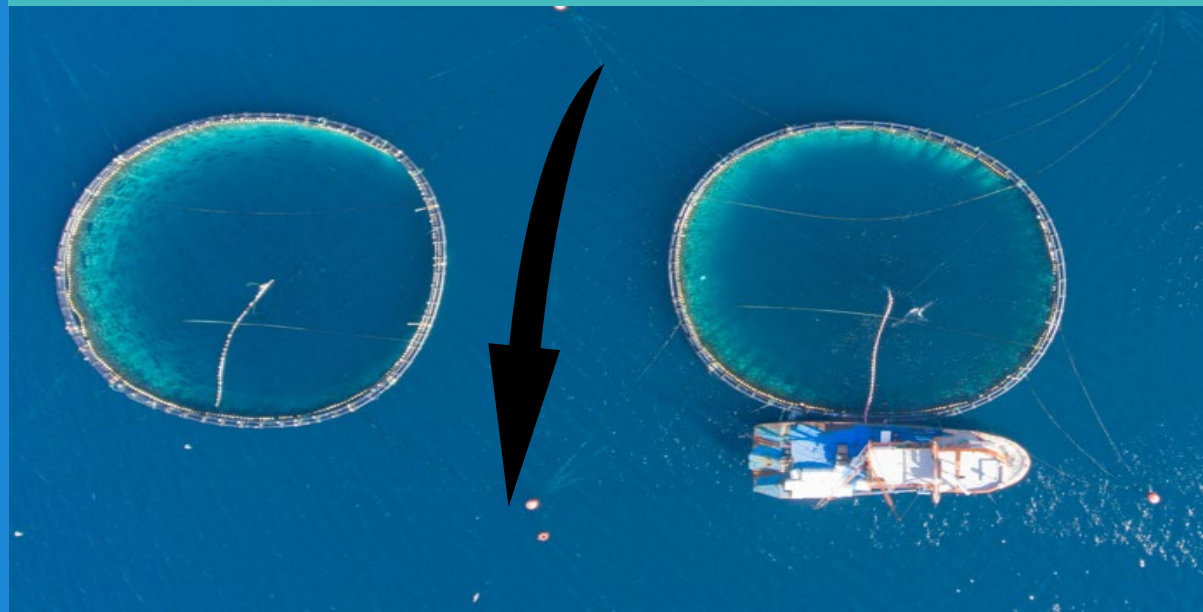
HARVEST

POST-HARVEST

- **Chemical use:** Aquaculture health plan (AHP) with detailed operation instructions; Chemical use management; Negative list of prohibited substances.
- **Diseases:** The prevention of the spread of pathogens is covered in eight principles and criteria.
- **Escapes:** Escape management aims at zero escapes. Attention to climate change related escapes, including cages structures.

- Evidence required of no significant negative impact on the **biodiversity of the benthic fauna** and/or recipient water body sediment/water column
- Prevention of interaction with predators
- Collaboration with farms sharing the same water body, including disease control, movement of animals, predators, and the evaluation of macro fauna





STANDARD CONTENT
Principles and criteria

Topic	Goal
Food safety	Protects consumers through strict requirements on feed and animal health management
Animal welfare	Improves the quality of products and boosts consumer acceptance
Social welfare	Protects workers' well-being, ensures proper training, and boosts consumer acceptance
Environmental/Biodiversity management	Provides tools for sustainable operations and boosts consumer acceptance
Feed management	Ensures efficient resource use and feed and food safety
Harvest/Postharvest operations	Prioritizes animal health and welfare and food safety for consumers
Hygiene	Supports food safety and prevents on-farm biosecurity issues
Pest control	Supports food safety and protects animal health and welfare
Sampling and testing	Supports food safety and protects animal health and welfare
Traceability	Protects product integrity and identifies the root cause of any incident

NEW IN IFA V6
Food safety

- **IFA v6 standard for aquaculture** continues to implement GFSI requirements (v2020).
- Increased **biosecurity** requirements
- Entire section on **hygiene** upgraded to Major Must, covering aspects such as design of facility to enable proper cleaning and controlled entry/exit points equipped for disinfection.
- All **outsourced processes, products, and materials** impacting food safety shall be identified, documented, controlled, and shall conform to specified requirements as well as food safety and regulatory requirements.

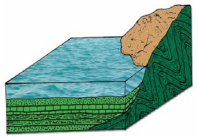
NEW IN IFA V6

Environmental sustainability and biodiversity

- **Environmental impact assessment (EIA)** now features effluent phosphorus, feed, and fertilizers
- Evidence required of no significant negative impact on the **biodiversity of the benthic fauna** and/or recipient water body sediment
- **Escape management** aiming at zero escapes, with new requirements on climate change-related accidents, such as cage structures
- Higher level of **responsible raw material sourcing for compound feed,** with targeted criteria for fish meal/fish oil, soy, and palm oil
- **Collaboration between farms sharing the same water body,** including disease control and animal movement

Sampling program to monitor the impact of the farming activity on the benthic fauna and recipient water body sediment for all systems

Benthic biodiversity, chemical indicators, and possible accumulation of chemical residues in the recipient water body **sediment**
FOR ALL FARMING SYSTEMS



NEW IN IFA V6

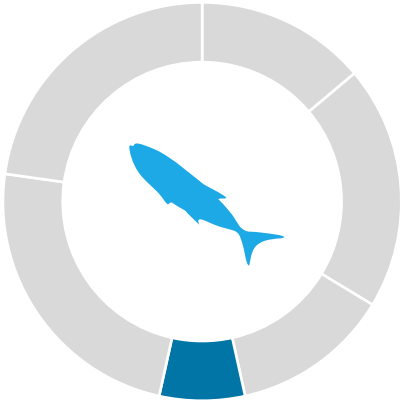
Workers' well-being

- **GLOBALG.A.P. Risk Assessment on Social Practice (GRASP)** continues to be a compulsory part of the IFA requirements for aquaculture with GRASP v2
- Entire section on **workers' health, safety, and welfare** upgraded
- **Diving operation** requirements expanded
- **Worker handling training** for increased compliance with hygiene and animal health criteria
- **Aquatic species welfare training** extended to include workers at all stages of production

NEW IN IFA V6

Production processes and traceability

- **Introduction of three values (metrics)** necessary as part of the audit report, in addition to the audit criteria:
  - **Percentage of mortalities** linked to causes of death
  - **Average fish meal and fish oil percentage** (including origin, where possible), and fish in:fish out information
  - **Economic feed conversion ratio** (eFCR) – the quantity of feed used to produce the quantity of fish harvested (net production refers to the live weight)



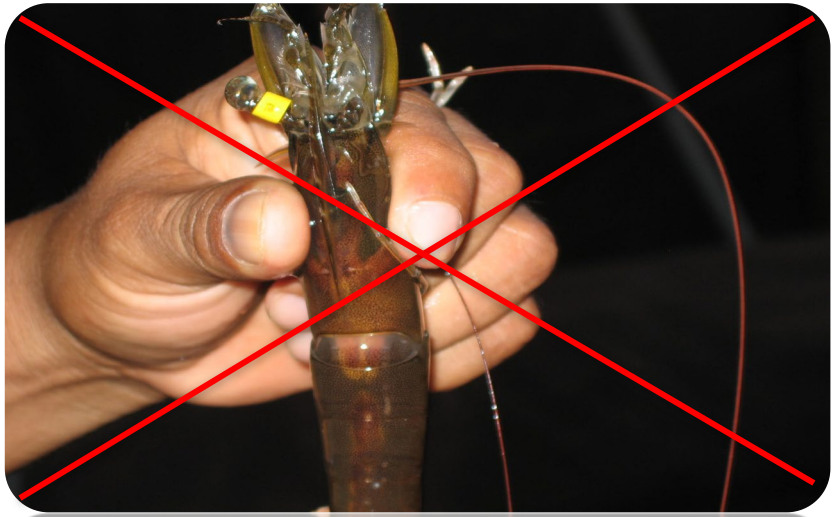
NEW IN IFA V6

Animal health and welfare

- **Predator exclusion plan** extended, including addition of requirements on nonlethal control practices
- **Aquaculture health plan (AHP)** provides transparency on antimicrobials, the management of chemical use, and a negative list of prohibited substances
- **Banning of seedlings sourced from shrimp females with eyestalk ablation** from April 2024
- **Environmental enrichment concept** adopted
- **Stricter humane slaughter practices** to reference the OIE Aquatic Animal Health Code
- **Prevention of pathogen spreading** expanded
- Animal welfare parameters **established for transport**

BROODSTOCK AND SEEDLINGS

As of April 2024, only larvae originating from shrimp females without eyestalk ablation will be accepted.



NEW IN IFA V6
Continuous improvement

Stages of a continuous improvement plan

1. Producer analyzes current practices using real data
2. Reporting is used to identify areas that can be improved
3. Producer sets measurable goals for improvement
4. New measures are implemented in farm practices
5. Implementation is checked and progress reviewed at annual CB audit
6. The continuous improvement plan is revised based on progress

- Producers are required to implement a plan to **analyze current practices** at farm level.
- Producers then **identify "hot spots"** and **set clear, measurable goals** for improvement in a defined area.
- Year-on-year, producers demonstrate their efforts towards improving aspects such as sustainability, food safety, and workers' well-being.

NEW IN IFA V6

Example of a continuous improvement plan

1 Producer analyzes **mortality rate as an indicator of welfare** and collects data

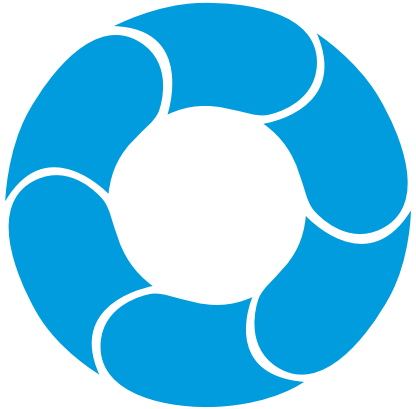
2 Reporting is used to identify the **percentage of mortalities linked to cause of death**

3 Producer sets **measurable goals for improvement of mortality rate**

4 New **measures are implemented** in farm practices

5 Implementation is checked and **progress is reviewed at annual CB audit**

6 The **continuous improvement plan is revised** based on the progress of mortality reduction



SUMMARY OF CHANGES

IFA v6 for aquaculture – Finfish, crustaceans, molluscs, and seaweed

According to the latest GFSI recommendations, the 12-month period for farms to comply with requirements for certified production processes for compound feed no longer applies.

Compliance with AQ 22.01.02 is now required from the initial audit onwards. This requirement is not new, but has been amended.

Topic	Reference
• Documented risk assessment for hazards to workers' health and safety	AQ 04.01.01
• Health and safety procedures	AQ 04.01.02
• Diving operations	AQ 04.01.03
• Health and safety training according to the risk assessment	AQ 04.02.01
• Documented waste management system	AQ 04.05.02
• A biodiversity-inclusive environmental impact assessment (EIA) and environmental risk assessment (ERA) NEW: *Guideline AQ III – Environmental parameters of relevance based on the aquaculture system used*	AQ 06.02.01
• Monitoring of the impact on the biodiversity of the benthic fauna and/or recipient water body sediment/water column	AQ 06.03.01
• Predator control techniques	AQ 06.03.03
• Aquaculture health plan (AHP)	AQ 07.02.03
• The hatchery/farm has a system to monitor and register health and welfare indicators	AQ 20.02.01
• Biosecurity plan	AQ 20.02.08
• If there is an area management plan, the farm is actively participating.	AQ 20.08.01
• Protein elements in the compound feed are *not* obtained from the same fish/crustacean species, unless hydrolized	AQ 20.08.02

Principle and criteria that require the audit report to include values

IFA v6 for aquaculture – Finfish, crustaceans, molluscs, and seaweed

- The self-assessment/internal audit and certification body (CB) audit reports shall have a value of the **overall percentage of mortalities** per production stage and values linked to the causes of death. AQ 20.05.02

AQ 22.02.03

average fish meal and fish oil percentage

fish-in/fish-out ratio

- The self-assessment/internal audit and certification body (CB) audit reports shall have at least one FCR value recorded: eFCR per production life cycle. **Economic feed conversion ratio (eFCR)** = Feed (in kg or mt) / Net aquaculture production (in kg or mt; live weight) AQ 22.02.05

EFFICIENCY

IFA v6 for aquaculture – Finfish, crustaceans, molluscs, and seaweed

Level	Number IFA V5.2 and V5.3-GFS	Number V6	Percentage IFA V5.2 and V5.3-GFS	Percentage V6
Major Must	182	199	77%	88%
Minor Must	46	22	19%	10%
Recommendation	9	5	4%	2%
TOTAL	**237**	**226**		

Versions 5.2 and 5.3-GFS contain a total of 237 principles and criteria (without the postharvest section), which means that **version 6 has 11 fewer principles and criteria**, **around 5% greater efficiency compared to the total number.**

Without section *28 POSTHARVEST – MASS BALANCE AND TRACEABILITY*

SMART FARM ASSURANCE SOLUTIONS

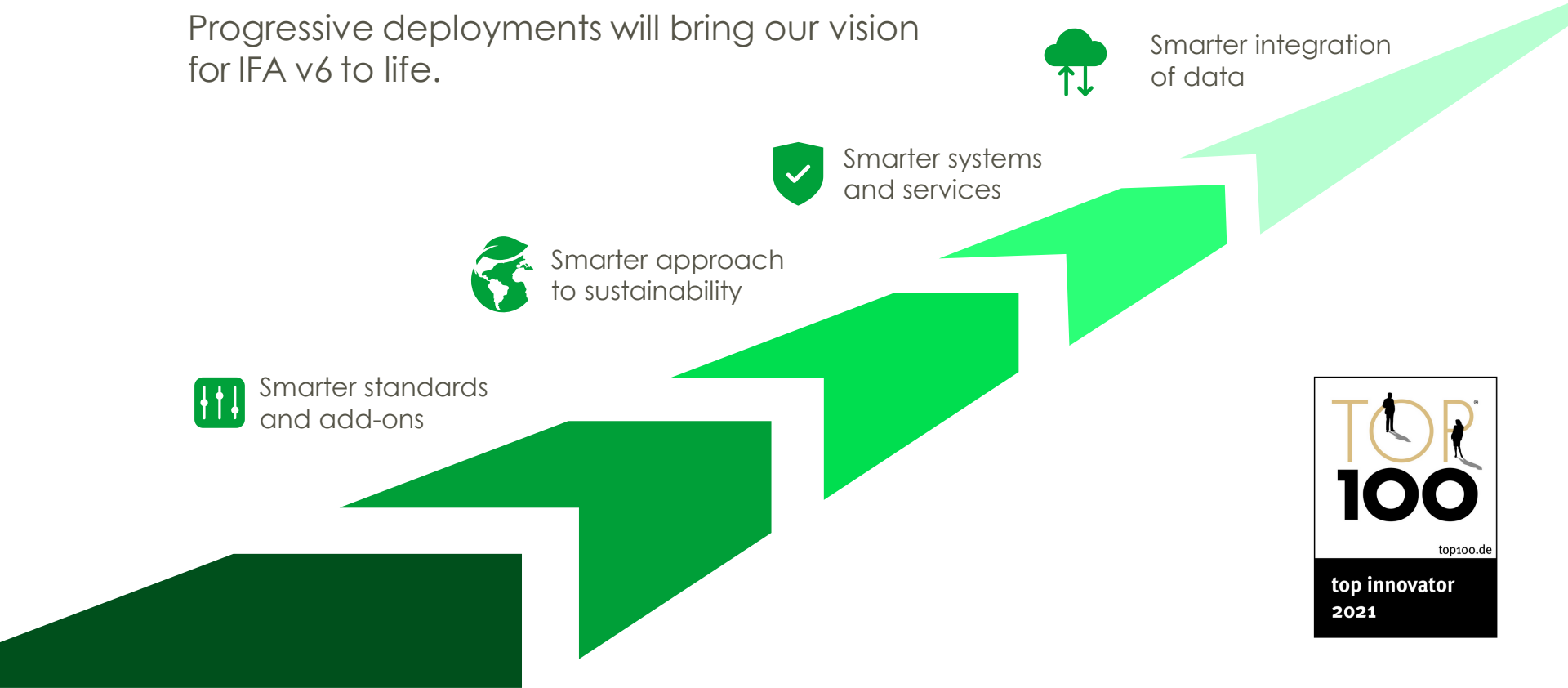
The benefit for all stakeholders

Smart, easy-to-use farm assurance solutions at your fingertips

SMART FARM ASSURANCE SOLUTIONS

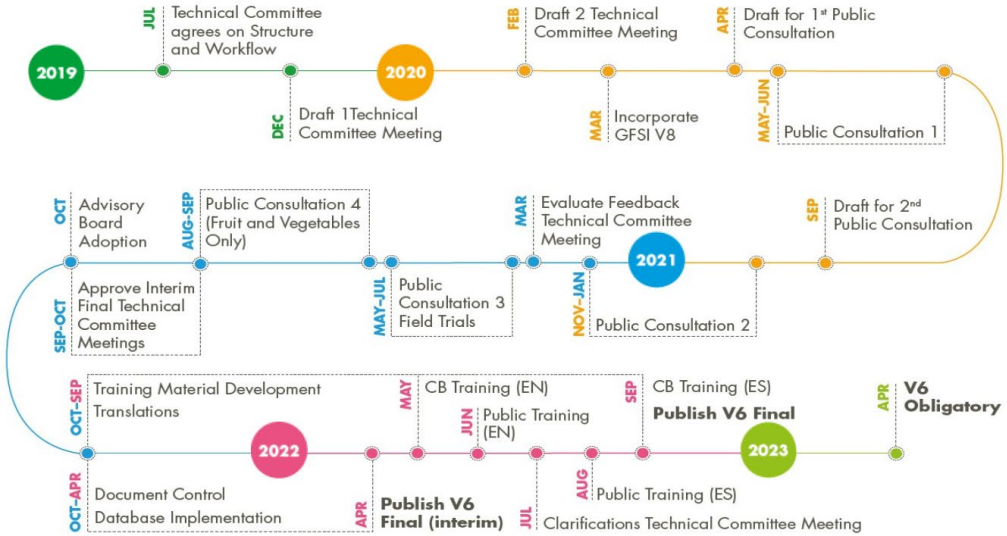
The journey towards our vision

Progressive deployments will bring our vision for IFA v6 to life.



TOP 100
top100.de
top innovator 2021

IFA V6
Timeline



Virtual launch event
26 April 2022:

globalgap.org/ifav6

REGISTERED TRAINERS

A helping hand for the certification process

Registered Trainers are:

- Farming experts
- Trained by GLOBALG.A.P.
- Authorized to provide trainings on GLOBALG.A.P. standards
- Able to support you on your journey to achieving GLOBALG.A.P. certification

Find Registered Trainers using our "Find a Registered Trainer" tool. You can recognize them by their green seal.

GLOBALG.A.P.
The Global Partnership for Safe and Sustainable Agriculture

The GGN label

Cross-category, consumer-facing label

Stands for certified, responsible farming and transparency.

THE GGN LABEL

Making certified, responsible farming visible

THE GGN LABEL

GGN label as a cross-category label

The GGN label stands for certified, responsible farming and transparency

We provide a solution for

- Flowers and ornamentals
- Aquaculture
- **NEW: Fruit and vegetables**

NEW: One label for all three scopes

GGN CERTIFIED FLORICULTURE WWW.GGN.ORG

GGN CERTIFIED AQUACULTURE WWW.GGN.ORG

GGN CERTIFIED AGRICULTURE WWW.GGN.ORG

GGN CERTIFIED FARMING WWW.GGN.ORG

ONE LABEL FOR ALL SCOPES

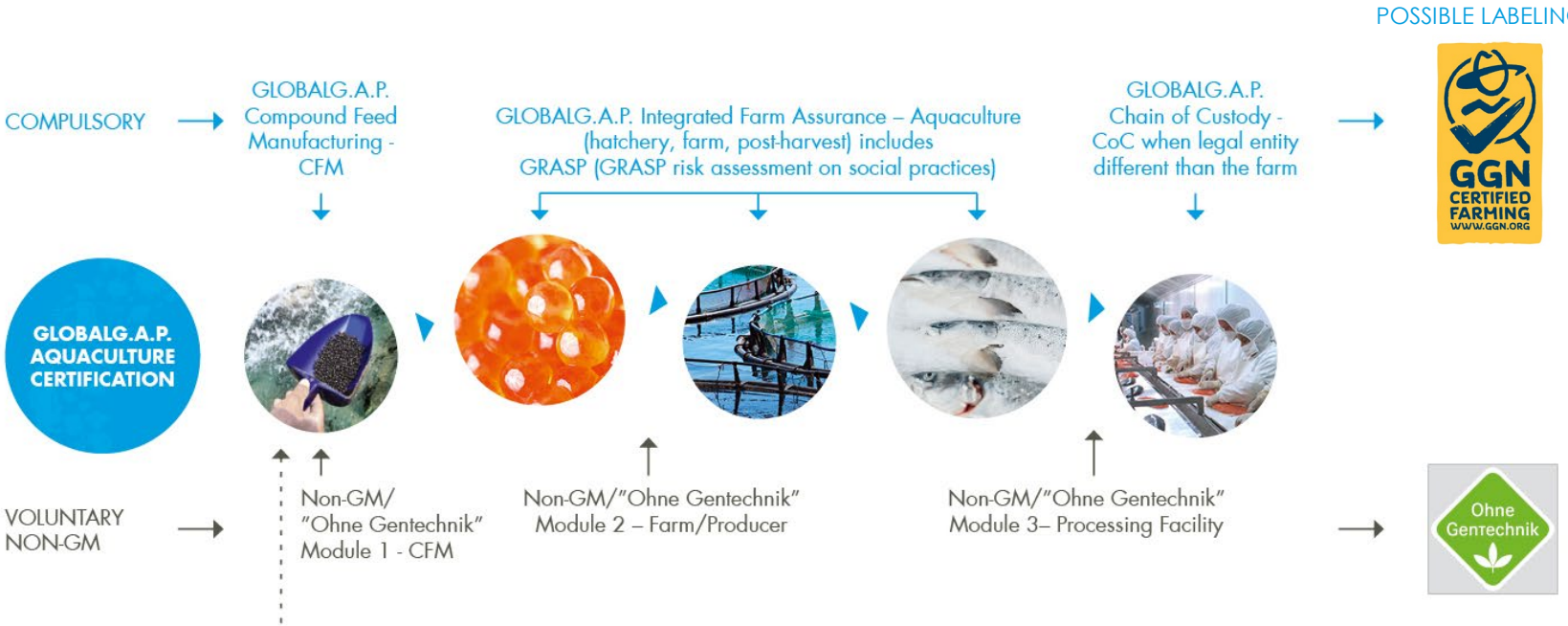
Fruit and vegetables

Aquaculture

Flowers and ornamentals

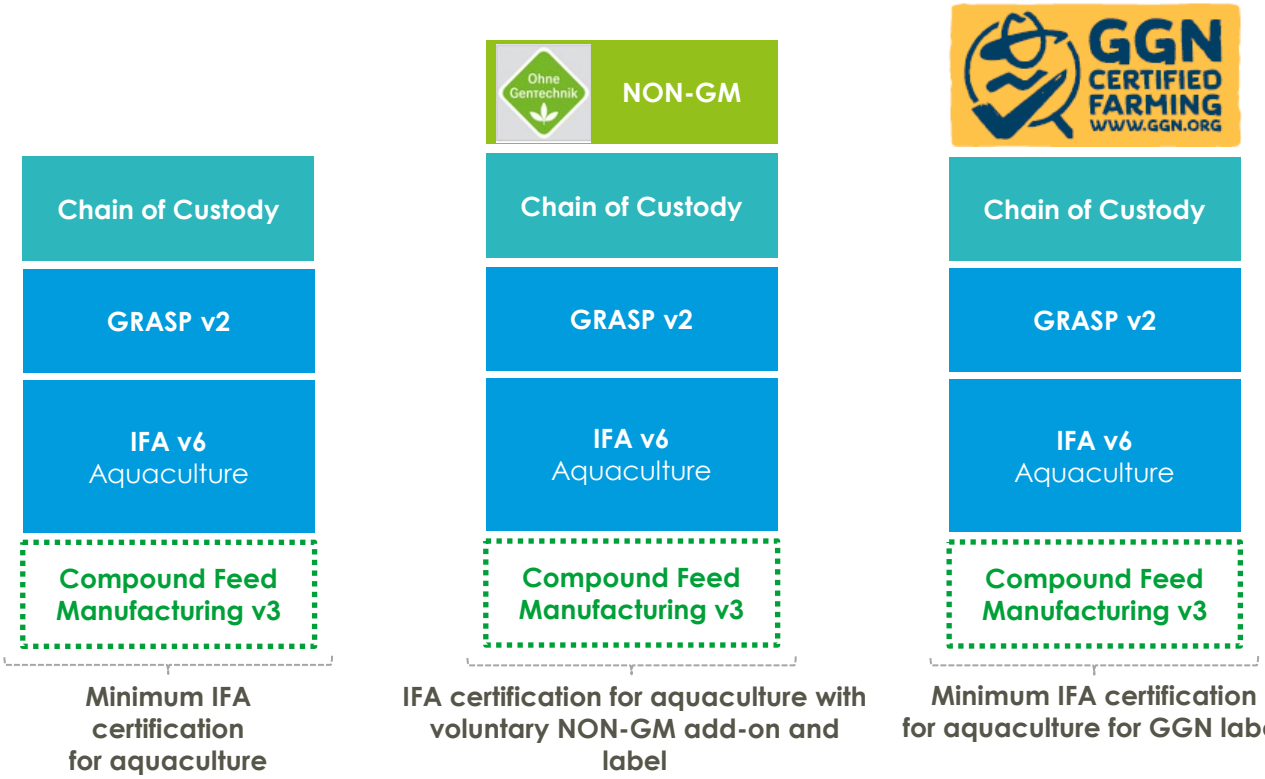
B2C COMMUNICATION

Available for both GFS and Smart editions



THE GLOBALG.A.P. PORTFOLIO

Aquaculture solutions



THE GGN LABEL

Making certified, responsible farming visible

Products with the GGN label are available at:

THE GGN LABEL

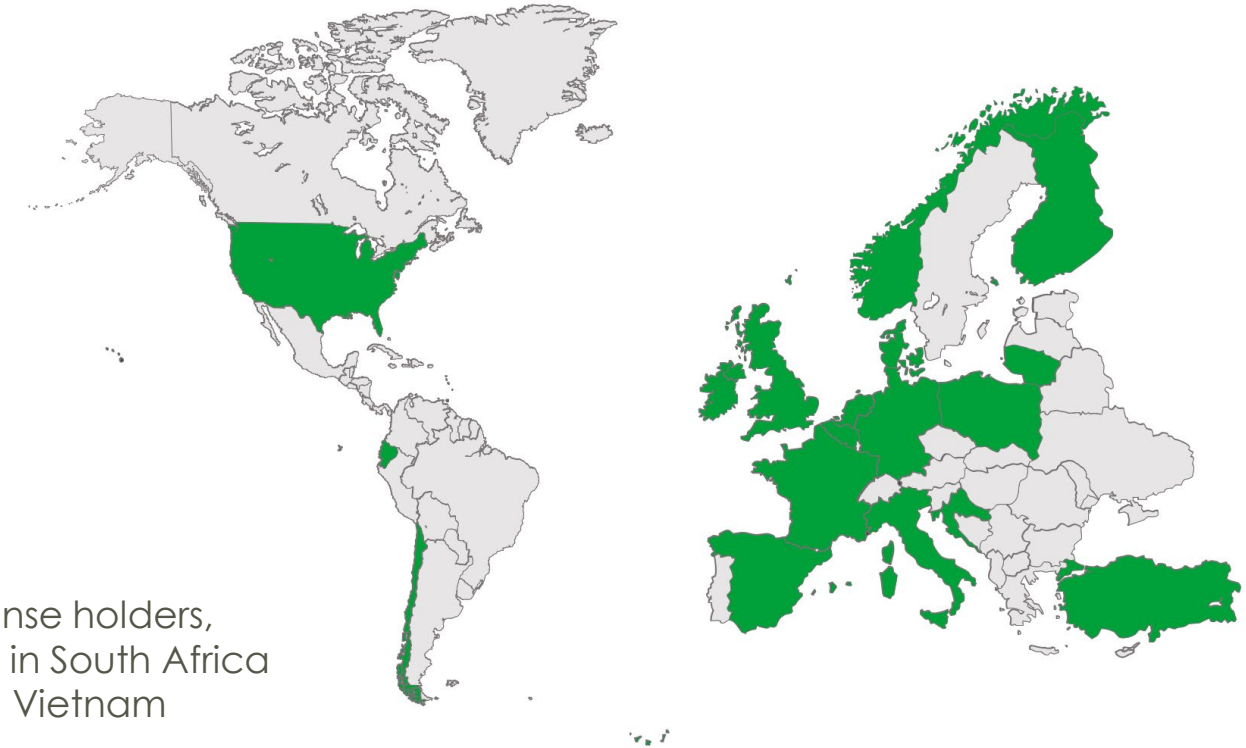
Making certified, responsible farming visible

Why are more and more retailers and brands adopting the GGN label?

- More flexibility in sourcing due to larger certified volume
- Increased assurance regarding food safety and animal welfare
- More cost-effective sourcing due to:
  - Higher supply volumes
  - Lower label license fee

THE GGN LABEL

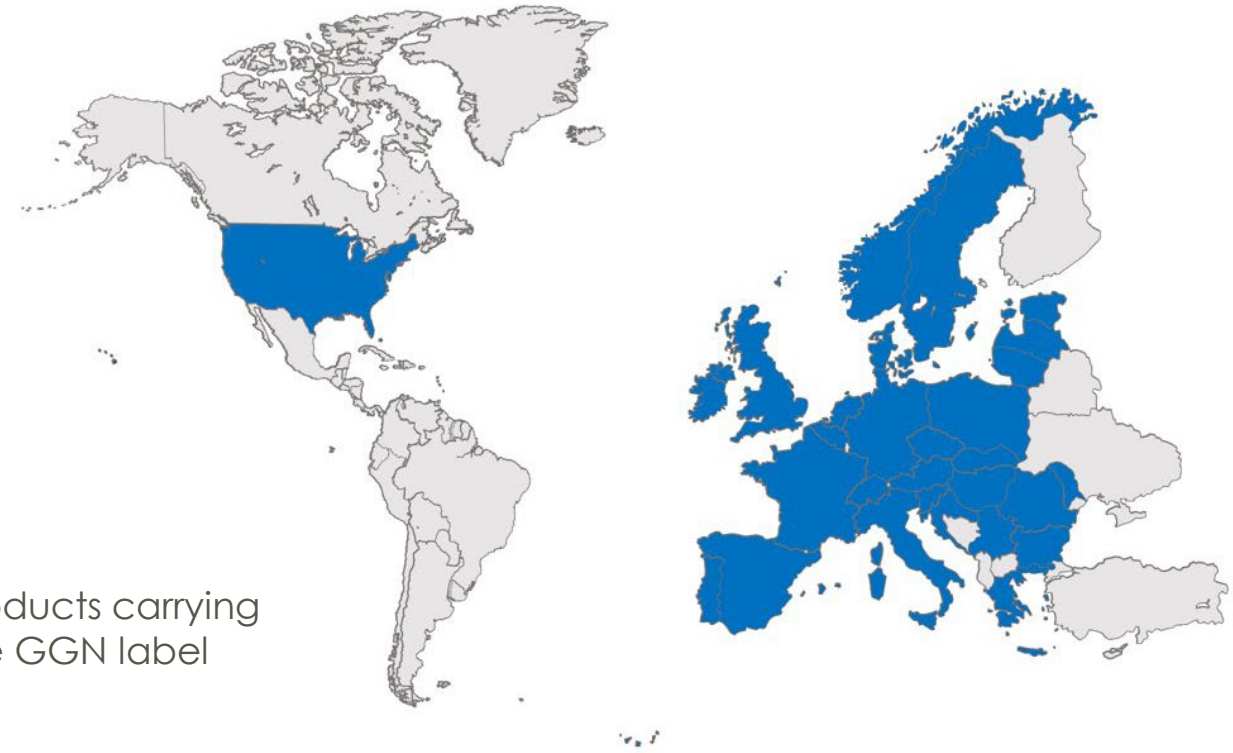
Countries with GGN label license holders



License holders,
also in South Africa
and Vietnam

THE GGN LABEL

Countries with products carrying the GGN label



Products carrying the GGN label