

ANNUAL REPORT 2022





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MESSAGE FROM THE ISF PRESIDENT

Our vision of a world where the best quality seed is accessible to all, supporting sustainable agriculture and food security is in immediate danger: agricultural production and trade is facing massive turbulence due to war, energy crises, extreme inflation and adverse climate change. As seed is a key foundation for agriculture and food production, these developments also strongly impact our sector. Due to an increasing number of phytosanitary issues (whether or not being scientifically correct) and trade barriers, global movement of seed is at stake and as a consequence food production chains become ever more fragmented and vulnerable. If this continues, food security can no longer be guaranteed. ISF and its members need to act! And we will.

In Barcelona, at the World Seed Congress in May last year, the global seed industry met for the first time after the COVID-19 pandemic. The new structure, with very active coordination groups, working groups and advisory groups under guidance of our professional ISF team appeared to be working very well and is gearing up to achieve important milestones related to our key strategic objectives. My predecessor Donald Coles could finally experience what had been achieved under his fruitful leadership. On top of this all, it was just delightful to meet each other in-person. The national organizing committee, ISF team and congress organizer made this into an unforgettable event.

Early November, at the midterm meetings in Rome more than 200 seedsmen and women from all over the world gathered to work on action plans and policy issues and engaged with several external stakeholders like FAO and IPPC. Our midterms coincided with the FAO Global Conference on Sustainable Plant Production where FAO Director-General Dr. Qu Dongyu in his opening speech clearly stated all FAO work starts with seed. A clear recognition and important signal, encouraging all of us to continue our work.

Also in Rome, the newly installed Board of Directors met for the first time. It was a pleasure to chair such an engaged group of professionals representing the main crops and regions in the world. The Board of Directors takes its increased responsibility to actively engage, define and govern the mission and vision of ISF, to maintain oversight and to endorse the key strategic objectives very seriously! And this will be very much needed given the challenges the global seed sector is facing.

In the coming years ISF will continue its work on the key strategic objectives and moreover we will give additional attention to a better inclusion of women in agriculture, the next generation seedsmen and women and seed resilience. Related to the latter, together with our partners, we will be launching several partnerships and concrete projects in order to contribute to the development of resilient seed systems in several countries. This all will have to go hand in hand with keeping ISF financially sound and bringing our reserves back on track.

Back to the beginning: as our vision is under pressure, it is more than ever important to work even harder on our mission: "creating the best environment for the global movement of seed and promoting the importance of plant breeding and innovation for global food security". This can only be achieved if we engage more intensively with the "outside world" like the value chain (with farmers at the first place), governments, intergovernmental and non-governmental organizations, research institutes, universities and students. This is also why we will be opening up the World Seed Congress gradually to key persons representing those groups. This is a new step towards a world where seeds will be seen as part of the solution.

I am very much looking forward to this journey and I hope we can count on you!

Marco van Leeuwen President



MESSAGE FROM THE SECRETARY GENERAL

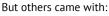
As I look back on my interactions with members, colleagues, policymakers, and partners in 2022, the conversations reflected a range of emotions:

Some came with:

optimism: "We are finally getting back to normal!"

joy and reconnection: "It's so great to see you again in person – you haven't changed at all!"

pride: "The seed sector is thriving and resilient. What a great industry we are in."



apprehension: "There is a war in Europe. This is unimaginable." alarm: "The world is not on track to meet its climate targets."

concern: "What a different world we live in now."

The year certainly brought moments of reflection. When we were young, it felt like the world was somehow more predictable. There was the feeling, at least for most people in the developed world, that the next generation is facing a better future. It certainly felt that way for me as student in Germany when the Berlin wall fell in 1989 and signaled the resurgence of freedom and progress across Europe.



Today that seems to have changed, with multiple challenges knocking on our doors. But we have no time to complain or dawdle. During the Word Food Forum 2022 at the FAO headquarters in Rome, I listened to a young, dynamic, and positive-thinking farmer who remarked that the older generation, meaning those in power, should stop

enumerating endlessly the challenges and problems of the world. Instead, what the next generation needs from its seniors is to capitalize on their experience, resources, and power to provide ideas, opportunities, and solutions. I found it refreshing, and a serious challenge extended to my generation.

As seed people, we are constantly thinking about the future, 5-10 or even 20 years ahead. It requires a great measure of confidence and positive thinking to invest so much time and money on research and development, to innovate persistently towards building a healthier, more food secure future, and to contribute to seed choice for farmers around the world.

The seed profession is a profession of optimism. This, despite the uphill climb in some topics where the private sector's contribution is viewed with suspicion or a lack of trust by the public sector. This is no longer a surprise to me after working many years in this field. But I also know that this can be overcome and in fact we see the tide shifting slowly. The private seed sector will not stop in its mission to give seed choice and innovation to farmers everywhere.

The lifting of COVID-19 restrictions in 2022 allowed ISF to engage, communicate, and represent our members' interests in international arenas throughout the year, in line with the ISF Key Strategic Objectives. You can read about them in the following pages.

What great excitement it was to engage with over 160 members of our 11 Coordination Groups, Expert Groups, Task forces, etc... A big THANK YOU to all companies and national seed associations - you are not only our stakeholders but essential contributors in driving our joint vision of "a world where the best quality seed is accessible to all, supporting sustainable agriculture and food security." Everybody knows it now by heart, I hope...

2023 rolled in with a lively meeting in January with the Dutch National Organising Committee to prepare our 100 years celebration in Rotterdam in 2024 (do not miss this one!). We are on the cusp of a new chapter, another century for ISF. This is my call to all of you: let's dream of a bright future for our sector in a continuously evolving environment, where each of us and the next generation has its place to contribute.

I cannot conclude without thanking my terrific team, Airah (on a baby break with Alice) – our social media mayen who has grown our community tremendously, Ben - our person for special missions to bring us up to speed with the value chain, Camille who started as an intern but is today running our events around the globe, Francine who brought us a new century in the world of communications – simply incredible, Hélène - multitasker Hélène who keeps us moving and engaging in international arenas where many of us would be sometimes even upset by the slowness and strong oppositions, Khaoula - perhaps some of you do not know her yet, but I can





tell you that we are reaching new horizons with her, **Marie** – oh la la what an engaging person within the office and with you our members...and not only on fees..., **Rose** – one needs to be quick on their feet to keep up with Rose, the phyto engine or should I say machine and the whole Seed Health Team with **Benedicte** – no pest is too tough for her... **Ludivine** – who makes the ISHI engagement powerful and **Joyce** – who reshaped in a modern way our world of ISHI.... THANK YOU ALL!

And last but not least, **Szabi**, how you could leave ISF? No, no, joking aside: after nearly 20 years in the world of associations it was an inevitable step for you to join one of our company members. You were the first hire in ISF after I arrived, and without you we would not be where we are today. Thanks, my friend.

One more person out there who I must absolutely thank: **Bernice**, thank you for being so generous in sharing your knowledge, for your unmatched skills in driving meetings within and outside our membership, and for your push! Some years back we were sitting in a meeting room in Lausanne to think about what we should do about New Breeding Techniques, and look where we are today. You can be proud of what has been achieved. Thank you!

Let me conclude by expressing my gratitude to all those who contributed to the different groups of ISF to continue to support our members and for the trust of the new Board of Directors, Executive Committee, and our President Marco van Leeuwen, who pushes us beyond our comfort zones.

Our strength is our diversity. Despite our differences, we have so many things in common, so let's move together to deliver on our KSOs and go further towards our joint vision!



At the farewell party for Bernice and Tim during the ISF World Seed Congress in Barcelona

For now, let me get to my plane for Kigali to launch the ISF Seed Resilience project in Rwanda. A new era begins!

Seed is life.

Michael Keller
Secretary General





ISF KEY EVENTS OF THE YEAR

7 JANUARY

Call for nominations

Over 250 nominations received from all regions of the world for membership and observer status in ISF Coordination Groups, Expert Groups, and Advisory Groups.

28 JAN - 1 FEB

ASTA Vegetable & Flower Conference, San Diego, California

ISF supports a systems approach for seed as a necessary alternative measure in which seeds produced in a NPPO-approved supply chain can be imported and (re-)exported with a phytosanitary certificate without the specification of measures for individual pests. During this event ISF presented on its work on systems approach and the next steps necessary for its recognition.



26 FEBRUARY

New composition of Board of Directors approved

The General Assembly by written procedure to elect the Board of Directors and the Executive Committee was concluded and the composition of the new BOD was approved unanimously.

1 MARCH

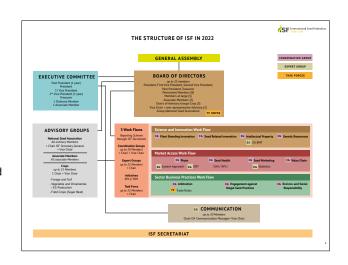
Launch of new Members Area

A vibrant, interactive online community has been set up for ISF members on members.worldseed.org

14 MARCH

New ISF structure kicks off

After approval by written procedure, the newly adopted structure and the newly created Coordination Groups, the Expert Group Communications and the three Advisory Group Crops are in place. A virtual meeting of newly elected chairs and vice chairs of the CGs took place on 21 March.



14 MARCH

Ben Rivoire and Ludivine Thomas join ISF

Ben Rivoire takes on the newly created role of Sustainability and Crop Value Chain Manager at ISF, while Ludivine Thomas joins as Technical Lead ISHI.





5-7 APRIL



ISF joins Fruit Logistica in Berlin

to meet members and discuss initiatives to promote sustainability, innovation and healthy diets, and to interact with various actors of the agri-food value chain.



12 MAY

The first ever International Day of Plant Health

ISF celebrated together with the UN Food and Agriculture Organization (FAO) and the International Plant Protection Convention (IPPC) the first International Day of Plant Health (IDPH). This international day was unanimously adopted by the UN General Assembly to raise global awareness on plant health, including seed health, as the foundation for all life on earth.

16-18 MAY

World Seed Congress

The International Seed Federation (ISF) concluded a successful World Seed Congress 2022 - together with Spanish seed associations ANOVE and APROSE - to further promote innovation, international movement of quality seed, and to take steps to drive engagement with the value chain.

Closed meetings held in Barcelona

Meetings of 11 Coordination Groups, 3 Expert Groups, the Board of Directors and the Secretariats of the National Seed Associations also took place the week before the congress and the day after, as industry experts tackled key topics on science and

innovation, market access, business practices, and communications.







Two new Honorary Life Members awarded

Jean Christophe Gouache and Eduard Fito were presented the honorary life membership in Barcelona.

Marco van Leeuwen is elected new ISF president

Dutch seedsman and business leader Marco van Leeuwen has succeeded Donald Coles as President of ISF.

Future Generation event launched

ISF organized for the first time in the congress a Future Generation event, where MBA students from IESE Business School presented case studies on the seed sector's efforts to address climate change and connect with farmers.

Thematic Day by ANOVE

ANOVE organized a thematic day on "the role of plant breeding along the modern food supply chain", featuring thought-provoking panel discussions and a gastronomic experience by Michelin-starred

Hermanos Torres.





CSM and on the Color of the Col

7-9 JUNE

World Farmers' Organisation General Assembly held in Budapest

In the panel on "New trends on the global scene and coping strategies" which was moderated by David Nabarro, ISF Secretary General Michael Keller emphasized the "day-in, day-out collaboration between farmers and the seed sector" that is essential to ensure food security even in times of crises.





13-17 JUNE

OECD Seed Schemes meet in Tallinn

After two years of virtual meetings, members of the OECD Seed Schemes met again to discuss policy and regulation, anchored on the contribution of seed to sustainable food systems. Szabolcs Ruthner, ISF Regulatory Affairs Manager, delivered a keynote on new breeding strategies to support sustainable development goals. Philippe Lesigne, Chair of ISF CG Seed Marketing / Bayer, joined the panel and reflected on the sustainability policy proposals of the different countries and regions.



15 JUNE



In the face of these multiple crises, it is more important than ever to innovate in the face to climate change and other shocks like the pandemic. Coming from the seed sector, we know how important new innovations like drought-tolerant crops are.

MICHAEL KELLER SECRETARY GENERAL, ISF



Michael Keller elected chair of IAFN

ISF Secretary General Michael Keller is elected Chair of the International Agri-Food Network (IAFN) which works on issues relating to agriculture, food, and nutrition, with a particular focus on climate change and food systems. Keller will lead the IAFN for the next two years in bringing together 19 international agriculture, farmer, and food associations that represent over 10,000 businesses worldwide in 135 countries. IAFN is also the elected focal point for the Private Sector Mechanism (PSM) of the UN Committee on World Food Security (CFS).

21-25 JUNE

ISF Tree and Shrub Special Group Meeting

The ISF Tree and Shrub Group held its Annual meeting in British Columbia, Canada, alongside the Canadian Tree Seed Conference, which looked at the challenges of the future tree supply.



12-16 SEPTEMBER

The International Seed Health Initiative (ISHI) group gathered in Zurich, Switzerland for its first in-person annual technical meeting since February 2020. A total of 55 ISHI members from all over the world, three members of the Coordination Group Seed Health, and the Seed Health team of the ISF Secretariat participated in this ISHI technical event.



19-21 SEPTEMBER

Agri Tech Innovation Summit, London

ISF participated in the World Agri Tech Innovation Summit in London, gathering some key stakeholders along the agri-food value chain to discuss innovation in the Ag. Sector, with some of ISF members/seed companies playing a key role in transforming resilient and sustainable food systems.

22 SEPTEMBER

WTO Trade Dialogue on Food

Experts from the seed sector were invited to exchange ideas in the session "Improved Seed Trade: Unlocking Global Food Security".



19-24 SEPTEMBER

GB9 ITPGRFA, New Delhi

The 9th session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA / the Treaty) held in New Delhi, India concluded with an agreement by the Parties to restart discussions on enhancing the functioning of the Multilateral System of the Treaty and the implementation of Article 9 of the Treaty which addresses Farmers' Rights. Santosh Attavar, ISF First Vice President, spoke at the Opening Ceremony calling for public-private cooperation.







21-23 SEPTEMBER



International Plant Health Conference, London

ISF took part in the first International Plant Health Conference (IPHC) organized by the UK Department for Environment, Food & Rural Affairs (DEFRA) and the FAO International Plant Protection Convention (IPPC) in London. The conference addressed emerging plant health challenges, including climate change, increase in international trade, rapid loss of biological diversity, and new pest pathways such as e-commerce.



26-28 SEPTEMBER

Seed Congress of the Americas, Punta del Este, Uruguay

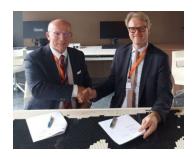
ISF participated in the Seed Congress of the Americas organized by the Seed Association of the Americas (SAA) in Punta del Este, Uruguay, highlighting the seed sector's commitment to engage actively on matters related to environmental and ethical responsibility, including soil health, agrobiodiversity, climate change, carbon sequestration, efficient food production, as well as human rights, improving farmer's livelihoods and promoting responsible governance. ISF also took the opportunity to explain the current work of ISF working groups on seed health and phytosanitary matters, in particular on Systems approach and ISF regulated pest list.





27 SEPTEMBER

The World Farmers' Organisation (WFO) and ISF formalized an alliance to put farmers front and center in the transition towards sustainable and climate-resilient food systems through the renewal of support to the Climakers Initiative for two more years.





3-6 OCTOBER

OECD Forest Seed and Plant Scheme Meeting

ISF joined the OECD Forest Seed and Plant Scheme meeting in Paris, representing the ISF Trees & Shrub special group to discuss matters related to standards facilitating trade, ensuring quality and transparency for production and use in the forest industry. ISF also participated in the Peace for Food high level round table event organized by BIAC, to support effective schemes and regulatory frameworks to facilitate international trade and create resilient food and supply chains. Lastly, ISF participated in the OECD Global Forum on Agriculture "Enhancing agriculture and food systems' contribution to climate change mitigation".

10-13 OCTOBER

CFS50, Rome

At the 50th Plenary Session of the Committee on World Food Security (CFS), ISF Secretary General Michael Keller attended as Chair of the Private Sector Mechanism and intervened at the ZeroHunger Coalition's side event to explain how governments and the private sector can mobilize more public resources and business investments and spend them better - to eradicate World Hunger. During the same week, ISF participated in the World Food Forum on Investment, Science and Innovation, Youth Fora.



Zero Hunger Coalition's side event at CFS50

What can governments and the private sector do in the face of a multidimensional crisis?

Monday 10 October 2022, 13.30-14.45 (CET)

REGISTER NOW

#ZHCoalition





22 OCTOBER



ISF Forage & Turf Advisory Group

The ISF Forage & Turf Advisory Group met in Berlin to discuss ways to facilitate trade and innovation and to promote the role and the importance of the industry in the agricultural and professional sport/ amateur gardener sector.

31 OCTOBER-5 NOVEMBER

ISF Midterm Meetings

Over 250 representatives of the global seed sector gathered in Rome for the ISF midterm meetings, where various Coordination Groups and Expert Groups met to further drive the association's Key Strategic Objectives (KSOs). The Board of Directors met for an intense two-day session to discuss ways to enhance the implementation and monitoring of the KSOs and to mobilize resources for targeted programs. At the meeting of the Advisory Group of National Seed Association, secretaries general from different countries interacted with FAO Deputy Director General Beth Bechdol.



31 OCTOBER



ISF Field Crops Advisory Group

The ISF Field Crops Advisory Group met in Rome, during the ISF midterm meetings.



2-4 NOVEMBER

FAO Global Conference on Sustainable Plant Production

The UN FAO organized the Global Conference on Sustainable Plant Production with the theme "Innovation, Efficiency and Resilience" at the FAO headquarters in Rome. Members of the ISF Board of Directors and various Coordination Groups attended the conference, renewing ISF's connection with FAO's leadership and reconfirming the support of the private sector.



3 NOVEMBER



ToBRFV dialogue

During its midterm meetings in Rome, ISF organized an international ToBRFV dialogue among the scientific community, seed industry, and governments through their National Plant Protection Office (NPPO) to share knowledge, increase communication and promote collaboration to address this plant disease.

11 -12 NOVEMBER

COP27, Sharm El Sheikh, Egypt

ISF participated in COP27. Among key focus areas are innovation and clean technologies as well as the centrality of water and agriculture to the climate crisis.



BCIU

ABInBev (PAPER)



14-18 NOVEMBER

Asian Seed Congress, Bangkok, Thailand

During the APSA congress, the ISF Vegetable Seed Production Expert Group met to discuss around the future of vegetable seed production. Seed production companies and farmers have growing difficulties maintaining their operations and supplying high-quality seeds due to various factors ranging from climate change to economic and political issues impacting seed production. It is important to raise awareness of these problems, and engage with other players in the value chain to find a workable solution.



17 NOVEMBER

ISF Sugarbeet Advisory Group

The ISF Sugarbeet Advisory Group members with all major seed and breeding companies met in Söllingen, Germany, to discuss relevant topics for the sugar beet industry.

22-24 NOVEMBER

ISF participated in the Growtech exhibition in Antalya, Türkyie, meeting ISF members and key stakeholders from the agricultural sector in the region.





30 NOVEMBER

Szabolcs Ruthner (Szabi), leaves ISF to join the private sector.

1 DECEMBER

Khaoula Belhaj-Fragniere joins ISF as Regulatory Affairs Manager.



8 DECEMBER

FAO Roundtable on Sustainable Seed Systems Management

ISF participated in the First FAO Roundtable Forum on "Sustainable Seed Systems Management" organized by the FAO and opened by FAO Director General Qu Dongyu.



ISF IN FIGURES

ISF welcomed new members in 2022

ASSOCIATE MEMBERS	COUNTRY	
Agro Synergies	Cyprus	€
Green Bridge	Egypt	ú
Takii	Japan	
Agrimatco	Jordan	
Global Seeds	Jordan	
National Seeds Production	Jordan	
Amalia SAL	Lebanon	*
Debbane Agriculture Holding	Lebanon	*
Tajuri Agricultural	Libya	0
Bejo	Netherlands	
Enza Zaden	Netherlands	
AFFILIATE MEMBERS	COUNTRY	
Synovivo Consulting	France	
MolGen NL	Netherlands	
Buhler Sortex	United Kingdom	
ORDINARY MEMBERS	COUNTRY	
Bangladesh Seed Association	Bangladesh	
Acosemillas	Colombia	
ISHI & RPLI		
United Genetics	USA	

7,500+

Number of seed companies involved in ISF through membership in national seed and trade associations or through direct membership. They are small and medium enterprises, family businesses, cooperatives and international companies who are engaged in breeding, production and trading.

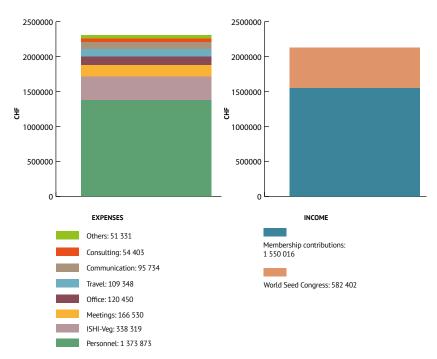
Under the new ISF structure, we have

- **11** Coordination Groups (CGs) working on a range of horizontal topics on 3 workflows: science and innovation, market access, and business practices.
- **5** Advisory Groups (AGs) including the NSA, Associate Members, and Crop groups Forage & Turf, Vegetable & Ornamental, and Field Crops.
- **6** Expert Groups (EGs) including Communications, Systems Approach, DRT, BMT, Statistics, and Production.
- Over 250 nominations received from all regions of the world for membership and observer status in ISF CGs, AGs and EGs.

1,500+

global seed professionals gathered in Barcelona for the World Seed Congress 2022, representing **400 companies** and around **70 countries**

Our association's income and expenses in 2022





277,605



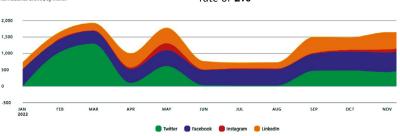
total **video views** for the year across all platforms. In 2022, we premiered the "Resilience" episode of Stories from the Ground featured vegetable breeders who are working on traits that help farmers mitigate the impact of climate change in different parts of the world.

4,741,741

total impressions on social media during the year with an average engagement rate of **2%**

33%

growth in the online community of ISF in 2022, with a total of **61,986 followers** across all platforms by Dec 31.





S01

KEY STRATEGIC OBJECTIVES 2021-2025

To promote the benefits of quality seed as the foundation of sustainable agriculture value chains

A year after the Seed Declaration signed in 2021 by numerous seed companies and seed associations, recognizing "that food systems must become more equitable, inclusive, and environmentally friendly with a salient contribution - as individual players or as a sector - towards the UN Sustainable Development Goals on poverty, hunger, economic growth, climate action, biodiversity, responsible consumption and production, and partnerships", a series of initiatives (new or ongoing) were pushed to increase the understanding and recognition of seed as foundational contributor to food production through engagement with the agri-food value chain.

The creation of two new Coordination Groups (CGs) namely on Value Chain (VC) and on Environment and Social Responsibility (ESR), supported the work of ISF and its members to create a platform for discussion and actions, with recognized experts, contributors and partners amongst different crop sectors, company types and from different parts of the world. The VC Group was established to increase the understanding and recognition of seed as a starting point to agri-food production through a structured and sustained engagement with the different actors along the different value chains. Members

of this Group, with the support of partners and observers are developing outreach programs with identified organizations, to engage with stakeholders benefitting from quality seed (farmers, consumer groups, retailors, producers, grain traders...). Following the development of a stakeholders mapping during the meeting in Barcelona, actions were taken to increase the outreach to the value chain with pro-active messaging to create better understanding of the positive role of the seed and farming sector to sustainable global food security.

The ESR Group was established to promote environmentally, socially, and ethically responsible business practices involving the seed sector. The purpose of this CG together with experts from ISF members and relevant partners is to build engagement of the seed sector in line with the UN Sustainable Development Goals (UNSDGs), such as promoting fair labor principles and practices, encouraging responsible use of energy, improving waste management and others. ESR CG is also supporting national and regional actions to increase the participation of young people in the seed sector (e.g. engagement with academia and training courses in the agricultural sector).



Sub-objective: Elevating the engagement of the seed sector with international organizations, governments, NGOs, and philanthropic bodies.

In 2022, ISF Secretary General Michael Keller was elected as Chair of the International Agri-Food Network (IAFN) which works on issues relating to agriculture, food, and nutrition, with a particular focus on climate change and food systems. This role will help increase the visibility of the private seed sector in the international business network of farmers, and food associations and with the Private Sector Mechanism (PSM) of the UN Committee on World Food Security (CFS).

On engagement with international bodies, ISF continued its participation in OECD meetings and at the OECD Global Forum on Agriculture on "Enhancing agriculture and food systems' contribution to climate change mitigation".





At the WTO Trade Dialogue on Food, ISF President Marco van Leeuwen, ISF Board Member Naomi Stevens, and ISF Secretary General Michael Keller exchanged with the FAO, World Trade Organization, and World Benchmarking Alliance on the role of international seed trade in food security.





Sub-objective: Increasing the visibility of the seed sector and farmers in ensuring global food security, sustainable crop production, health and climate adaption, and of their contributions to the achievement of the UN SDGs.

On behalf of ISF, Mr. Duncan Ochieng' Onduu from the Seed Trade Association of Kenya (STAK), was elected as co-chair of Business and Industry Major Group (BIMG). BIMG comprises private sector associations and Institutions and is one of the nine major groups accredited to the UN Environment Program and the UN Environment Assembly (UNEP). One of the actions of this group is to look ahead at the Sixth session of the United Nations Environmental Assembly (UNEA) to be held in 2024, with a specific theme on "Effective, inclusive and sustainable multilateral actions to tackle climate change, biodiversity loss and pollution" and to come with a coordinated voice on their respective contribution to the topic. This will provide a great opportunity for the seed sector to be more visible in the global authority that

sets the environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the UN system and serves

as an authoritative advocate for the global environment, explaining further the contribution of the seed industry in achieving UNSDGs.





Complementing the three-day seminar organized by UPOV on the role of plant breeding and variety protection in enabling agriculture to mitigate and adapt to climate change, ISF organized a webinar to reflect and follow up on the conclusions of the UPOV seminar: what does this mean for the breeding sector and for agriculture in general? What solutions are offered by the constant innovation in the seed sector. How do we take it forward? The webinar was filmed in the WIPO Studio in Geneva, Switzerland, with thanks to WIPO and UPOV.





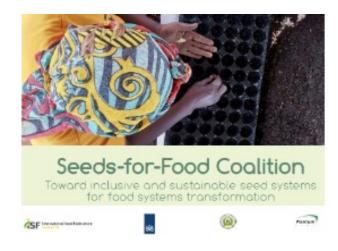
The UN FAO organized the Global Conference on Sustainable Plant Production with the theme "Innovation, Efficiency and Resilience" at the FAO headquarters in Rome. ISF took part in the conference with ISF Secretary General Michael Keller as vice chair of the Steering Committee and keynote speaker in

the opening ceremony. Niels Louwaars, Managing Director of Plantum, was vice chair of the Technical Advisory Committee. Members of the ISF Board of Directors and Coordination Groups attended the conference.





Further, ISF engaged with partners (including Plantum) through a public-private-civic partnership in the "Seeds for Food Coalition initiative" to promote and foster local to global awareness and mobilize joint actions to support seed systems and to strengthen their inherent inter-connection with food. The goal of this initiative is to secure the availability of healthy quality seeds to all farmers, irrespective of their farming system, to respond to the demands of local and global food systems.



The World Farmers' Organisation (WFO) and the International Seed Federation (ISF) formalized in September 2022 an alliance to put farmers front and center in the transition towards sustainable and climate-resilient food systems. ISF reaffirmed its support to "The Climakers" initiative for the next two years, which will gather and scientifically validate on-theground practices by farmers to mitigate and adapt to climate change. Workshops will be held in multiple regions (Europe,

Africa, Asia and the Pacific, Latin America, and the Caribbean) to build the knowledge base, relying on farmers' practical experience in the field which could be replicated and scaled up on a broader level. Additionally, WFO and ISF will jointly implement activities to support innovation and engagement within the agri-food value chain in the form of knowledge building, advocacy, and promoting farmer-driven innovative practices.



In November, ISF attended the Climate Change Conference (COP 27), to increase the visibility of the seed sector in international fora and in particular within the agri-food sector

to discuss options to address and mitigate impact of climate change on the World, including on agricultural production (dedicated Agriculture Day on November 11).







To accelerate the delivery of innovation and enable seed to remain a contributor to solutions that address farmer and consumer needs through

Sub-objective: Promoting consistent, science- and risk-based policies to enhance seed potential

General action: Identify and address underlying concersn and opportunities from society, regulatros and value chain on innovation and encourage an enabling environment that gives access to diverse breeding methods and farming systems.

Future proofing policies

The advancements in science and technology in plant breeding innovations (PBI) has initiated a new era where tools, deliveries and applications are expanding continuously. Genome editing has revolutionized research in the fields of plant breeding, molecular biology, genetics and genomics and this only the beginning. The ISF CG PBI continued this year in engaging in a "horizon scanning" activity to map breeding applications as well as their implications on the different regulatory frameworks around the world together with the PBI Policy Group of CLI. While some countries have started implementing their policy around products of plant breeding innovations, some others are still lacking behind, thus creating flux and uncertainty in using leading edge-innovations in plant breeding. In this context, both ISF CG PBI and PBI Policy Group of CLI developed an advocacy paper on "Future proofing policies for products issued from plant breeding innovations" where the application of the ISF criteria for the scope of regulatory oversight were updated. This document was adopted in March 2022 by the ISF CG PBI and PBI Policy Group of CLI members as an addendum/explanatory note to the ISF position paper on "Plant breeding innovation: consistent criteria for the scope of regulatory oversight". This industry-led initiative underlines the importance of flexible and "future proof" policies that can keep pace with the continuous advent of plant breeding innovations. These papers are available to ISF members in the Members Area and can be used for outreach activities with government. In addition, a detailed powerpoint presentation on this topic was prepared and will soon be shared with the members.

Advocacy/Outreach

To advocate for an international harmonized policy, ISF provided written opinions to PBI-related policy discussions or countries consultations. In particular, ISF commented on the Chinese regulation on genome-editing, provided comments in the public consultation on the EU legislation, and the genome editing proposal put forward by the government of South Africa. ISF engaged either by sending letters directly to the respective ministry or by submitting comments in the formal public consultation procedures. ISF was also active

at the OECD NBT exchange working group on new breeding technologies. In addition, ISF representatives participated in different meetings and series of workshops in the Asian countries such as Malaysia (APSA) and India (FSII) and hosted an innovation panel at the World Seed Congress in Barcelona.

Engaging with Global Farmers Organization on PBI-related statement advocacy.

ISF engaged with its network in the seed growing industry to help the Global Farmer Organization (GFO) in identifying farmers organizations that are willing to sign and endorse the Global Farmers Statement on plant breeding innovation. This statement urges governments to remove regulatory impediments and uncertainty to advance plant breeding solutions for rural communities, food security and sustainable development.

Revisiting the plant breeding innovation FAQs

ISF CG PBI revised and updated the Frequently Asked Questions (FAQs) on plant breeding innovation in 2022. A Comprehensive list of questions related to PBI were addressed among those are PBI tools, deliveries, methods, unintended effects, benefits, IPs and regulation, etc. Link to the FAQs can be found here: FAQs – International Seed Federation.

General action: Maintain freedom to operate for treated seed

The Coordination Group (CG) Seed Related Innovation (SRI) in its new interaction and composition met for the first time during the ISF World Seed Congress in Barcelona. The following three priorities were agreed for the next year:

- Microplastics monitoring current legislation trends and act as a communicator at the global level.
- Movement of treated seed review of the current position paper on movement of treated seeds and preparation for the advocacy pieces that will follow the review
- Biologicals definition and draft of a statement clarifying their definition. The CG is actively organizing a number of communication tools to share across the ISF membership and relevant stakeholders bring important messages as the ones cited above.



Sub-objective: Ensuring fair and efficient access to genetic resources for their conservation and sustainable use

Finally in 2022 the two major treaties dealing with the Access and benefit Sharing of Genetic Resources could resume their biannual meetings of Parties.

First, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) held its 9th Governing Body in New Delhi in September 2022. A great number of delegations attended and the seed sector was very well represented with a delegation of 10 persons from ISF, Euroseeds, AFSTA, APSA and Semae (the French interprofession). The main topic of discussion was the restarting of the negotiations to enhance the functioning of the Multilateral System, negotiations that were put on hold since the failure to find an agreement at GB8 in 2019.

A Working Group chaired by Australia and India will start resuming discussions from where they stopped in 2019 and the seed sector has 2 seats there. Until GB 10 which will take place in November 2023, the WG will mainly take stock of the developments of the needs and practices of the various satkeholders involved in the Access and benefit Sharing (ABS) of Genetic Resources for Food and Agriculture. The

topic of the ABS of Digitalized Sequence Information will also be addressed by this working group. The Governing Body requested the Convention on Biological Diversity (CBD) which mainly deals with this topic, to bear in mind the need for implementation of the Treaty and of the CBD/Nagoya Protocol to be mutually supportive, in their consideration of potential decisions on a solution for benefit-sharing from the use of DSI on genetic resources.

Indeed DSI was one of the main topics in the agenda of the last COP MOP of the CBD and the Protocol of Nagoya, which took place in Montreal instead of Kunming (China) in December 2022. The parties agreed to establish a global multilateral mechanism for benefit sharing from DSI, including a global fund, with a process to develop and operationalize this by COP 16 (end of 2024). The seed sector will have a key role to play in the development of this multilateral system due to its experience of this kind of mechanism for the ABS of PGRFA in the ITPGRFA. ISF is working with the ICC (International Chamber of Commerce) at the CBD level.







To promote more efficient movement of quality seed in order to continue to deliver benefits through:

Sub-objective: Driving the development of science and risk-based seed policies and standards for seed and promoting their consistent and effective adoption and implementation at national, regional, and global levels.

Sub-objective: Facilitating the movement of seed through engagement with stakeholders from the entire value chain.

2022 was another transformative year for at the International Seed Health Initiative (ISHI) and the Regulated Pest List Initiative (RPLI). It was a year in which we strengthened our internal process and structure with the rolling out of important initiatives that will help to guarantee our continued success in the future. Among these are the new proposed prioritization tool, which will support the International Technical Groups (ITGs) during decision making and the new workflow which takes into consideration multiple pre-screens as well as the organization of the satellite event "Plant health starts with seed health" to be held on the 12th International Congress of Plant Pathology. By working together, we made good progress toward our strategic goals such as the finalization of one more ISHI project, and the continued update of the regulated pest list with the addition of Okra. We have also delivered on main topics such as biological relevance with the publication of two articles https://worldseed.org/wp-content/uploads/2022/06/Indicatorplant-test_retrospective-analysis_May-2022.pdf and https://doi. org/10.1094/PHYTOFR-03-22-0029-FI

The Coordination Group Phyto in its new interaction worked hard engaging with a number of governments bringing the message of the private seed sector forward. Much was achieved through 2022 with some governments agreeing on the science

based information provided by the seed sector resulting on the adjustment of phytosanitary regulations. Predictable international movement of seed is critical to ensuring food security. The seed industry is concerned that phytosanitary measures adopted by some governments do not follow the ISPM guidance for equivalent measures, nor do they provide enough time when implementing new measures to exporting governments to comply with the changes in regulations. These phytosanitary measures also negatively impact the exchange of genetic resources internationally due to adoption of prohibited sampling sizes for research and breeding seed lots.

To promote consistency in the terminology used to describe the reaction of a plant to a pest, the ISF Coordination Group (CG) Phytosanitary has adopted a set of agreed definitions. The paper revised by the Disease Resistance Terminology Expert Group (EG) defines two levels of resistance. Three new differential sets to identify and distinguish different biotypes, pathotypes, races or strains within a (sub)species for the the following pathogens Lettuce Fusarium wil (Fol), Spinach Downy mildew (Pe) and Tomato leaf mould (Pf) was released with their project report.

Sub-objective: Supporting the recognition of seed company quality management systems in international trade to enhance the movement of seed.

Upon approval of the Board of Directors in Rome, the ISF Expert Group on Systems Approach has released a concept paper on systems approach for seeds to achieve alignment among the public and the private seed sectors for an approach that simplifies and harmonizes phytosanitary certification for the international movement of seed. ISF strives for a system that will be multilaterally recognized, broadly adopted, and will recognize current industry processes which reduce phytosanitary risk when producing quality seed. For more information see the link https://worldseed.org/our-work/ phytosanitary-matters/systems-approach/

The V&O Board kept its focus on the policy discussions in India, where there is an on-going discussion on seed policy development. The direction is overall positive, however there are some negative proposals relative to the international seed trade. The most concerning part of the proposal is to discontinue the Open General License (OGL) in vegetables and force companies to produce seed in India after two years of import. ISF teamed up with APSA, ASTA, and wrote a letter to

the Ministry of Agriculture of India to raise our concerns. ISF's vegetable seed company members continued the work with ISTA to improve sampling and testing rules that are better adapted to the needs of the vegetable seed sector. In the framework of this cooperation a study has been done with the involvement of six (6) companies. The aim of the study was to prove that based on germination and purity results, tomato seed lots are homogeneous enough to create a more flexible number of commercial seed lots without the need for retesting. The result of this study was satisfactory, which paved the way for future rule changes.





To encourage policy environments that supports fair and sustainable business models

Sub-objective: Advocating the necessity and benefits of intellectual property rights for value creation and innovation

The Coordination Group (CG) Intellectual Property of ISF has worked in a coordinated manner with other breeders organizations who are observers at UPOV (CropLife International, CIOPORA and the regional seed associations) on various topics related to the improvement and implementation of UPOV 1991 Act.

Following a joint request of the breeders' organizations in 2019, a new Explanatory Note on Essentially Derived Varieties (EDV) was nearly approved by UPOV members at the end of 2021. However, some members of the Council raised questions in January 2022 and the process of adoption has been suspended since then. By this revision, the breeders' organizations wanted to clarify a few points to help the interpretation of cases when needed. First of all the predominant derivation is now the main element to be considered; secondly, it seemed no longer appropriate to state that only one or a few modifications of one or more essential characteristics might lead to a new derived variety being outside of the scope of the EDV principle. That is why, ISF members approved during the Annual General Assembly in July 2021 the modification of a paragraph of the ISF View on Intellectual Property from 2012, which is now stating: "1.4.3 ISF interpretation on essential derivation." ISF and its allies have tiredlessly explained to UPOV members the importance of modification of the Explanatory Note 2017 but it seems that a consensus on a new text will not happen any time soon. Discussions and seminars are still ongoing.

In various fora ISF highlighted the importance of intellectual property rights for value creation and seed innovation delivered to farmers of all sizes, all around the world. This

topic is particularly important as a debate opposing Farmers' Rights and Breeders' Rights has arisen in some international assemblies. ISF consistently reminds its various stakeholders that there should not be an opposition between these two notions but rather a mutual implementation for farmers to be able to access the varieties that suit best their needs. UPOV has created a Working Group to initiate a discussion on activities that can be conducted by subsistence farmers under the private use exception. ISF has started in 2021 a brainstorming on the topic, which has concluded in 2022 that due to the diversity of legal and social situations of farmers around the world it is very complicated to come up with a single international position. The seed sector remains united to empower farmers and to provide them with the necessary choice of locally adapted varieties they deserve.

Sub-objective: Fostering engagement against illegal seed practices throughout the value chain

The Coordination Group Illegal Seed Practices has reinforced its engagement with partner organizations (SIPA, SIPI, SICASOV, CIOPORA, Breeders' Trust and AIB) to become a platform of exchange of information and good practices. The group has also started working on providing more information to ISF members on the legal framework of different countries in terms of counterfeiting. The country profiles will soon be available online.







To support ISF members by providing services and becoming the global platform for exchange and collaboration within the seed sector

Sub-objective: Enabling dialogue, business and partnership

General action: Organizing the ISF World Seed Congress

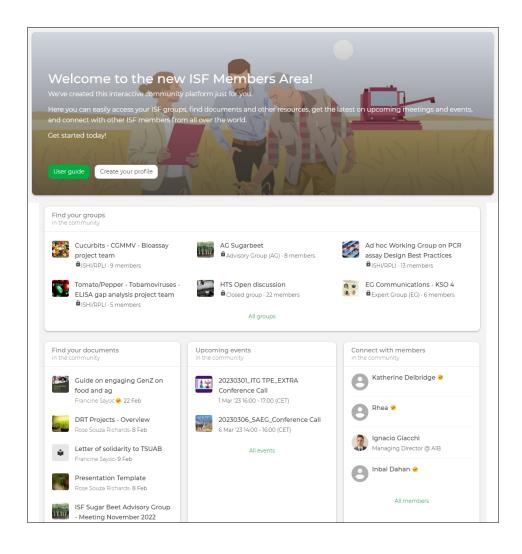
2022 was a significant year for ISF's engagement with members, as the first in-person congress was held since 2019. The congress was attended by more than 1,500 global seed professionals representing 400 companies and around 70 countries. Aside from providing a chance for members to meet face-to-face, the congress which was co-organised with the Spanish seed associations ANOVE and APROSE, allowed the global seed sector to reconfirm its joint commitment towards innovation and the movement of quality seed to support sustainable agriculture amidst a changing and increasingly challenging world.

Then-President Donald Coles said: "the challenge for agriculture and food production today is to grow more using the same area of land, using fewer natural resources, and more sustainably." Coles pointed out that, over the past 50 years, "public-private partnerships in plant breeding have helped increase agricultural yields of some crops by up to 90%, while at the same time making it possible to increase food production to feed a growing population."

The Congress slogan *Sowing a Vibrant Future* takes on a whole new meaning as the global seed sector faces the consequences of the war in Ukraine. In the face of the crisis, ISF reaffirmed the need for seeds to be able to move globally in order to ensure farmers' access to this critical farming input anywhere in the world.

Sub-objective: Facilitating alignment to enable coordinated outreach and advocacy

A refreshed Members Area was launched in March 2022, just after the confirmation of newly elected members of the ISF Coordination Groups, Advisory Groups and Expert Groups. The Members Area is ISF's internal community online and a useful tool for members to access meeting documents and resources. The platform has an interactive, social element – providing members a good way to connect with colleagues globally.





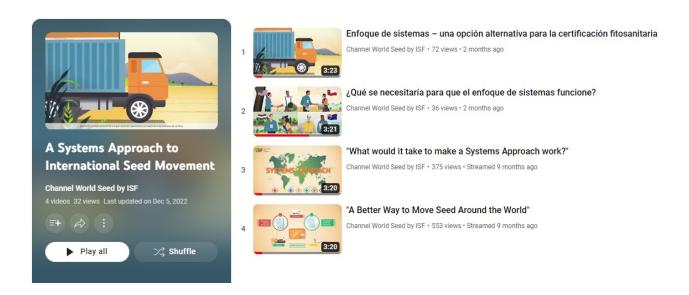
General action: Creating internal advocacy tools

ISF further supported its members in 2022 by creating internal advocacy tools and communications resources on technical topics. Together with the Expert Group-Systems Approach and ISF Communications, ISF has made the following explainer videos for members as communications tools to help their

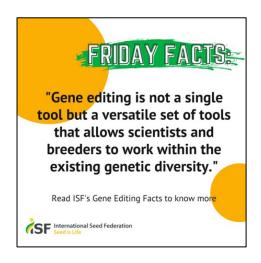
outreach and advocacy with government.

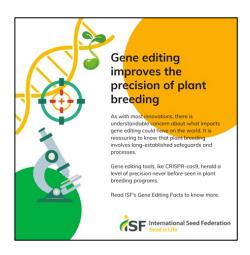
- Part 1: "A Better Way to Move Seed Around the World"
- Part 2: "What would it take to make a Systems Approach work?"

The videos are available on Channel World Seed (YouTube) in English and Spanish.



Additionally, ISF together with the American Seed Trade Association (ASTA), CropLife International, and Euroseeds, developed a series of fact sheets based on scientifically validated, peer-reviewed articles. The aim is to clarify concepts and debunk common myths around gene editing. From these fact sheets, ISF created a #FridayFacts campaign on social media aimed at the agriculture community and the public in general, featuring short videos and graphic cards on gene editing. We also made these resources available to our members to support their own communications.





All the #FridayFacts communications assets are available for ISF members to support their own communications.



World Food Day campaign

On World Food Day 2022 and in the run-up to the UN climate change conference (COP 27) in Cairo, Egypt, ISF shined the spotlight on #FoodHeroes in the global seed sector, who are providing solutions to pressing climate-related challenges with the end goals of supporting food security for all and sustainably transforming our food systems.

These #SeedHeroes include researchers, plant breeders, business managers, and plant scientists who work with farmers and communities all over the world to develop new varieties and farming practices to help reduce the impact of agriculture on the environment and help farmers better adapt to increasingly unpredictable and extreme weather events. Read their stories here.

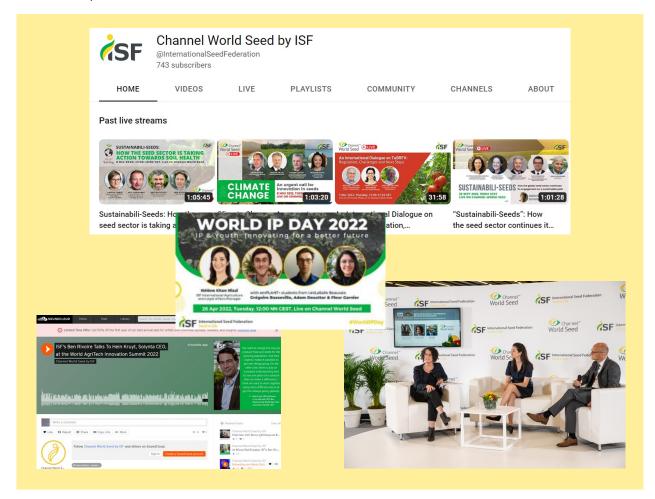


Channel World Seed

ISF also continued its communications and advocacy online via Channel World Seed, delivering content and hosting webinars on a range of topics in the ISF workflow.

Channel World Seed also made its debut in the ISF World Seed Congress, where for the first time a TV studio was built in the congress exhibition area for 30-minute sessions including interviews and panel talks.







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