Access to Seeds Index

REPORT OF THE INDUSTRY ROUND TABLE

Final report
6 January 2014

The seed industry on their role in bridging the gap between
the smallholder farmers and leading seed companies.
Washington DC, 23 October 2013

Access to Seeds Index

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MANAGEMENT SUMMARY

On 23 October 2013 the Access to Seeds Index organized an Industry Round Table to consult the seed industry on its role and responsibility in increasing agricultural production in the developing world for global food security, with particular focus on the smallholder farmer. Representatives of eight leading seed companies participated, as well as representatives of two international seed industry federations. The event was hosted by The Netherlands Embassy to the USA in Washington DC.

This Industry Round Table concluded a series of stakeholder consultations to gather input for the methodology of the Access to Seeds Index. The release of the Methodology Report for the Access to Seeds Index is scheduled for March/April 2014. The first Access to Seeds Index will be published in Q1 2015. The Access to Seeds Index aims to identify and recognise good practice within the seed industry that has an impact upon seed access by smallholder farmers.

The Access to Seeds Index observes that millions of smallholder farmers in the developing world are currently producing below their potential because they lack access to knowledge and expertise that was key to the tripling of agricultural production in the developing world in the past 50 years, as was also noted by the UN High Level Panel on the Post-2015 Development Agenda. To reach a large number of farmers and deliver technology and knowledge on a large scale, the Panel advocates market-based approaches. Governments, NGOs and research institutions have a role to play, but the active participation of the private sector is also essential.

The Access to Seeds Index uses a broad definition of 'Access to Seeds', which was further developed during the Farmers' Round Table in Addis Ababa on 23 and 24 September 2013. Access entails more than just providing seeds. The six dimensions are:

1. **Availability** Do the seeds that fit the farmers' needs exist?
2. **Accessibility** Can farmers easily obtain these seeds?
3. **Affordability** Can farmers afford to use these seeds?
4. **Utilisation** Do farmers have the capacity to use these improved seeds?
5. **Profitability** Can farmers make a profitable business out of it?
6. **Autonomy** Do farmers have freedom of choice, both in their capacity as end-users as well as producers of seeds?

Participants in the Industry Round Table underlined this broad view. They added access to adjacent technologies as an important aspect of the 'utilisation' dimension. On affordability, participants added that farmers as entrepreneurs benefit more from higher return on investment and access to finance than a lower price for seeds as such.

The Access to Seeds Index aims to influence company behaviour and business models. For this it uses a methodology linking possible contributions to access to seeds to business activities. The preliminary technical areas that resulted from previous stakeholder consultations reflected insufficiently the dimensions of access, according to the Industry Round Table participants. Based on this dialogue, the technical areas are refined into seven fields that are now subject to expert review:

1 General access to seeds management
2 Stakeholder engagement, public policy, market influence
3 Intellectual Property and genetic resources
4 Research & Development
5 Provision, packaging and distribution
6 Enabling strategies for farmers
7 Capacity advancement in local seed sectors

Participants in the Industry Round Table agreed that the Access to Seeds Index is not about 'helping farmers' but about creating new innovative, inclusive business models that enable farmers to create a business and to increase their production and income in a sustainable way. This search for innovative business models is reflected in one of the strategic pillars of the methodology of the Index.

Also other bodies, such as governments creating an enabling environment and a level playing field, have a role to play. Some companies indicate that the main reason for doing business in only a limited number of developing countries is the fact that the enabling governmental environment is not in place. Other companies that do business in a greater number of developing countries mention that there are still plenty of ways of starting a business in these more difficult environments from within the countries, working with local partners. The Access to Seeds Index will not rank governments, but seeks co-operation with the Doing Business in Agriculture Index, currently under development by the WorldBank, which assesses the regulatory framework in countries.

An important topic in the dialogue was the acknowledgement that the seed industry operates in a highly politicised and sensitive field. This brings with it a responsibility for the Access to Seeds Foundation to carefully construct the Index methodology, and also requires meticulous positioning and framing of the Access to Seeds Index.

The Round Table concluded with a breakout session in which participants provided input on possible indicators on each technical area. According to the Round Table, in particular partnerships are essential; for instance, collaborations in research and breeding, providing extension services or providing access to seeds and adjacent technologies. Another point brought to the table was that companies could play a role in training and educating the next generation of farmers and breeders from the targeted food-insecure countries.

BACKGROUND AND DESIGN OF THE INDUSTRY ROUND TABLE

On 23 October 2013 the Access to Seeds Industry Round Table organised in Washington DC. The goal of the Round Table was to provide a platform for the seed industry to learn more about the concept of the Access to Seeds Index and to provide input for its methodology. The conference was hosted by the Netherlands Embassy to the USA in Washington DC. The Dutch Government and the Ministries of Foreign Affairs and Economic Affairs initiated the development of the Access to Seeds Index as an intervention to address the potential of the global seed industry for global food security, in particular focusing on smallholder farmers in developing countries.

The Industry Round Table followed a month after the Farmers' Round Table Conference held in Addis Ababa, focusing on the needs of smallholder farmers, hence this Round Table was the second dialogue meeting on the Access to Seeds Index. Julian Kinderlerer, Emeritus Professor of Cape Town University, was invited to report on the results of the Addis Ababa Round Table. Orlando de Ponti, former Managing Director of Research and Development of Nunhems B.V. (part of Bayer CropScience AG) and Past President of the International Seed Federation, chaired the meeting. The event was opened by Peter Mollema, Deputy Chief of Mission for the Royal Netherlands Embassy to the United States.

The aim of the conference was threefold: (1) to thoroughly inform the leading seed companies about the Index initiative, its mechanism and proceedings, (2) to discuss the needs of smallholder farmers in gaining access to quality seeds and the role and responsibilities that leading seed companies see for themselves in solving these needs, and (3) to collect input from leading seed companies for the development of the Index methodology.

The top 20 seed companies in staple crops and vegetable crops were invited to this Industry Round Table, as well as the international seed associations ISF, ESA and SAA. A total number of 14 participants from eight companies and two associations participated in the conference, as well as a number of observers from the Dutch Ministries and Embassy, the Access to Seeds Foundation, the Access to Medicine Foundation and the Bill & Melinda Gates Foundation. The companies that participated are, in alphabetical order: Bayer Cropscience AG, Dupont Pioneer, EastWest Seed, Enza Zaden, HZPC Holland B.V., KWS Saat AG, Monsanto Company and Syngenta. The associations that participated are ISF and SAA. A representative of Croplife International took a seat as an observer. The complete list of participants can be found in the attachments. Travel expenses were covered by companies themselves.

The Round Table was held under Chatham House Rule, and therefore the report does not attribute quotes or positions to specific participants or organisations. The report reflects the outcomes of the Round Table and is used as input for the development of the methodology of the Access to Seeds Index, alongside the input that came from other stakeholder consultations.

The Index is developed by the independent Access to Seeds Foundation, based in Haarlem, The Netherlands. The Access to Seeds Foundation would like to thank the

Netherlands Embassy to the USA for hosting this event, opening its residence for the evening dinner with all participants and the support given during the day and in its preparation. The Foundation would also like to thank the participants for their active participation, time and input.

I AIM AND SCOPE OF THE ACCESS TO SEEDS INDEX

The Round Table was opened by Peter Mollema, Deputy Chief of Mission for the Royal Netherlands Embassy to the United States, followed by a presentation by Ido Verhagen, Project Manager of the Access to Seeds Index, on the background and development process of the Index. It draws its inspiration from the Access to Medicine Index. Ed Monchen, COO of the Access to Medicine Foundation, explained how the Access to Medicine Index works and what we can learn from that experience. After a Q&A on how the Index works, the first dialogue round started on the scope of the Index. Below follow highlights of the three introductions.

Opening of the Industry Round Table

By Peter Mollema, Deputy Chief of Mission for the Royal Netherlands Embassy to the United States

Creating food security through improved agriculture and economic development is a top priority for the Dutch government. Leading seed companies have contributed to this challenge for decades by helping farmers all over the world grow better crops. The Dutch government supports the Access to Seed Index because it will build upon the good practices of the industry and make its efforts more transparent.

Of course, the index will also identify responsibilities and opportunities to step up efforts to do more, to do better, and move faster towards feeding 9 billion people by 2050. The index will have to align with the business interests. We cannot feed the world with government grants and philanthropy. We need new business models.

The index needs to be legitimate, accurate and practical. That is why the input of the leading seed companies will be crucial. The Royal Netherlands Embassy to the United States is pleased to host this discussion to ensure that the views of the industry are heard.

Introducing the Access to Seeds Index

By Ido Verhagen, Project Manager, Access to Seeds Index

The Access to Seeds Index is an initiative taken by the Dutch government. It is an intervention to influence the behaviour and business models of leading seed companies and to improve access to quality seeds for smallholder farmers in developing countries, with the ultimate goal of reducing hunger and poverty.

One of the world's most pressing challenges as we look towards the future is achieving sustainable food security for all. Currently 870 million people worldwide suffer from chronic undernourishment. Food insecurity is most alarming in sub-Saharan Africa; most people suffering from hunger live in South and South-East Asia. Also; some countries in Latin America are considered food insecure.

To achieve sustainable food security, increasing agricultural production in these areas is an essential part of the solution. This has to be done in a time of climate change, of which the effects on the predominantly rain-fed agricultural systems in the developing world are still unpredictable. The 'good news' is that in these same areas millions of active farmers currently produce below their potential, because they do not benefit from the decades of progress made in agriculture in the industrialised world.

Figure 1 *Average Corn Yield 1961-2011 in Africa, North America and Europe. Source: FAOStat, 2013*

In its recent report on the Post-2015 Development Agenda, the UN High Level Panel pointed to the tripling of agricultural production in the industrialised world in the past 50 years, in part thanks to high-yielding varieties. To reach a large number of farmers and deliver technology and knowledge on a large scale, it advocates market-based approaches. Governments, NGOs and research institutions have a role to play, but an active role for the private sector is also essential. Next to local businesses, it sees a distinctive role for large firms in linking local economies with larger markets, scaling up sustainable business models and providing access to technology, finance and markets.

It is often said that developing varieties fit for the agro-climatic zones of the developing world is capital-intensive and a long-term process. This doesn't always need to be the case, as was recently demonstrated by FairPlanetSeeds in Ethiopia who presented its results at the Farmers' Round Table in Addis Ababa. They tested improved tomato varieties from three leading seed companies, developed for other regions which might match Ethiopian conditions, in comparison with local varieties, using agronomical practices available and affordable to the local smallholder farmers. Some improved varieties reached over five times higher yields than average in Ethiopia. Also, local varieties produced two times higher yield thanks to better agronomical practices. It illustrates that a lot can be achieved by improving agronomical practices, but even more so by combining these with improved varieties.

Could it be this simple? Maybe in some cases. But as Olivier de Schutter, UN Special Rapporteur on the Right to Food, noted in his report on the 'Right of Everyone to Enjoy the Benefits of Scientific Progress', the current business models and policy paradigms in the seed industry 'leave out precisely those who need most to be supported, because they are the most vulnerable, living in the most difficult environments.' If this is the case, we are looking at something that requires systemic change; something that cannot be done by one company alone, but requires joint action. The learning process that the Access to Seeds Index seeks to trigger could help in finding new solutions and business models.

Throughout the industry we already see several projects, practices and partnerships in which companies seek ways to reach smallholder farmers and contribute to increasing agricultural production in the developing world. Our request for case studies delivered two examples that are instructive.

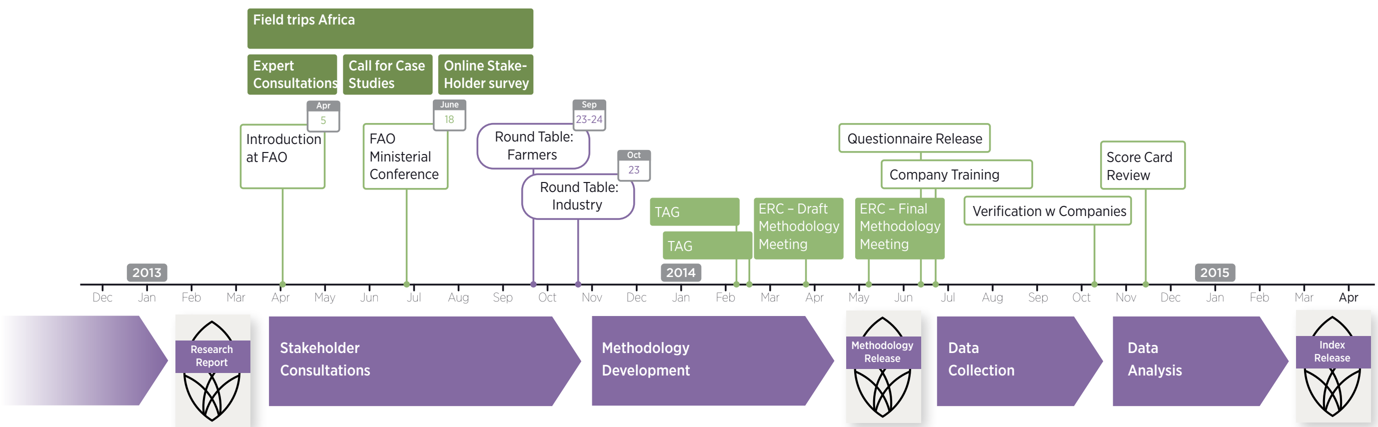
In the Kilimo Salama Project, Syngenta works on improving the affordability of high-quality seeds by providing seed insurance. Using solar-powered weather stations and mobile payments dramatically reduced administrative costs. It illustrates that 'access to seeds' needs to be defined more broadly than just access to the product itself, which we also learned from our dialogue with farmers. It also demonstrates that advances in communications technology can lead to new and valuable propositions and opportunities to engage with farmers.

Another case provided by EastWest Seed teaches us that organising demonstration plots and providing extension services from land preparatory to marketing can enhance successful adoption of improved varieties. The company works together with governments and local NGOs. Also in our field trips and stakeholder consultations we learned of several cases, including from the CEO of a local seed company in Uganda who explained that a partnership with Monsanto allowed him to learn from their way of working how to raise the levels of professionalism in his company.

The Access to Seeds Index aims to stimulate companies to scale up these projects and speed up the processes of finding new models that work, by shining a light on these practices, learning from them and indentify companies that make an effort in this field. For this, we draw our inspiration from the Access to Medicine Index. Of course, global health challenges differ from challenges in global food security, as do the structures of the industries and the nature of the companies. Therefore the methodology of the Access to Seeds Index has to be tailored to the specifics of the seed sector. It is being developed in a thorough process involving all stakeholders, including the industry itself.

But the sectors do compare. In both, impressive scientific progress has been made in delivering new technologies and products, in which leading R&D firms played a decisive role. These technologies are easily available and accessible in the industrialised world, but do not reach people in need in the developing world. Leading companies in each sector have the ability, the role and a responsibility to improve access. The Access to Seeds Index addresses leading seed companies on this role.

Figure 2 *Development process of the Access to Seeds Index, full version in appendix 2013*



Background on the Access to Medicine Index

By Ed Monchen, COO, Access to Medicine Foundation

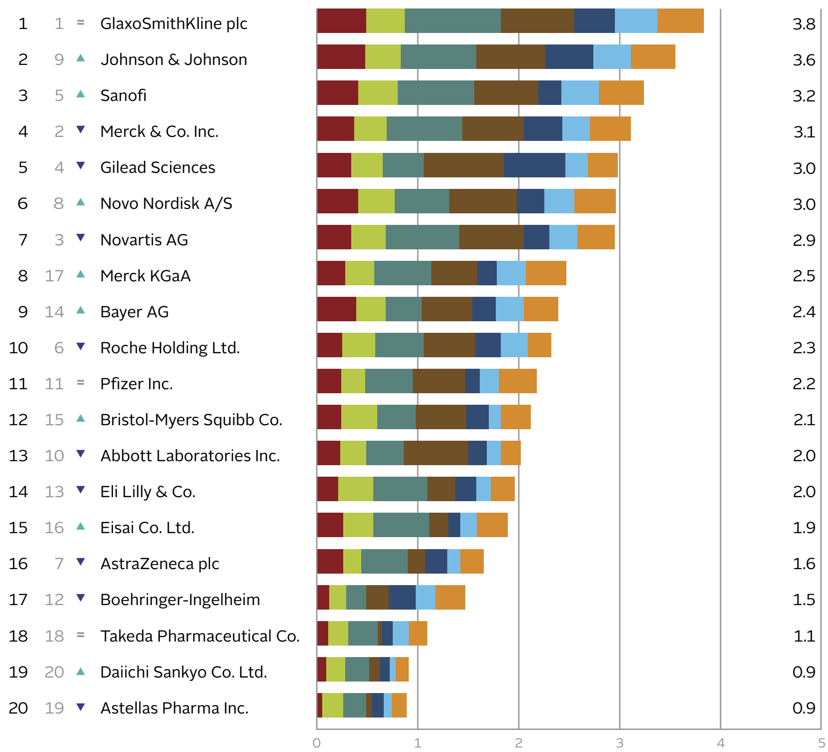
Five billion people around the globe have access to medicine: 2 billion to go. This is what the Access to Medicine Index stands for. The Access to Medicine Index independently ranks pharmaceutical companies' efforts to improve access to medicine in developing countries. Funded by the Bill & Melinda Gates Foundation and the UK and Dutch governments, the Index has been published every two years since 2008.

The Access to Medicine Foundation was established in 2003 to take an inclusive and collective approach to defining the role of the pharmaceutical industry through dialogue and consultation with all major stakeholders, including the industry itself. The access to medicine problem is multifaceted, and responsibility for tackling it lies with many different sectors - governments, NGOs, academia, pharma companies, finance institutions and multilateral organisations such as the WHO. As manufacturers and developers of life-saving products, pharmaceutical companies clearly have a role to play.

The first Access to Medicine Index was published on the initiative of Dutch entrepreneur Wim Leereveld. His experience when working with the pharmaceutical industry had taught him that simply 'naming and shaming' the industry did not encourage big pharma to play their part. Instead, he decided, it was time to recognise good practice within the pharmaceutical industry by developing a ranking system to show which companies do the most to improve access to medicine and how.

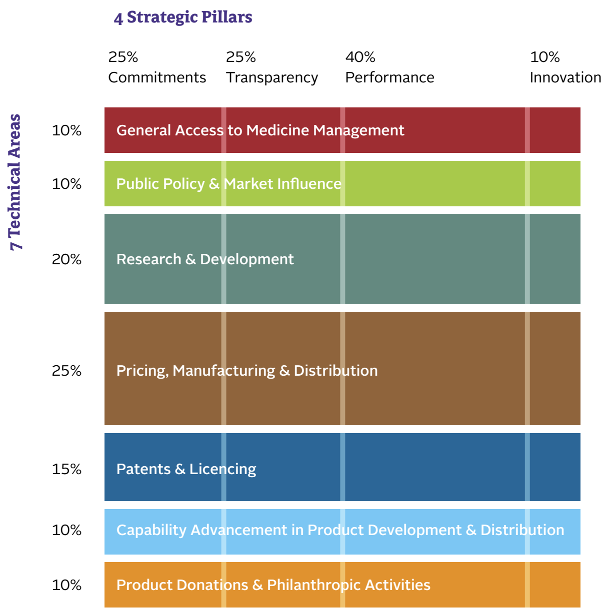
The Access to Medicine Index uses a weighted analytical framework to consistently capture and compare data from the top 20 research-based pharmaceutical companies across a set of countries, diseases, and product types. For each successive Index,

Figure 3 *Access to Medicine Index 2012. More information: www.accesstomedicineindex.org*



relevant stakeholder group representatives help to refine this framework to ensure that it remains up to date with respect to global health priorities. The framework is constructed along seven technical areas of focus, which cover the range of company business activities that experts consider most relevant to access to medicine. Within each area, the Index assesses four aspects of company action: commitment, transparency, performance and innovation. Together this makes the index methodology.

Figure 4 *Methodology framework of the Access to Medicine Index*

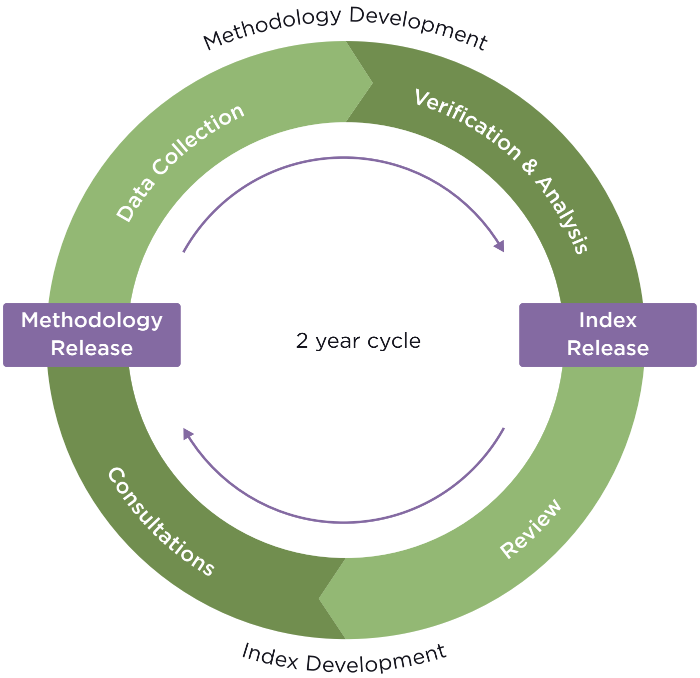


The Access to Medicine Index is a product of a two-year process known as the 'Index cycle'. During year one of the cycle, the Foundation focuses on reviewing the previous Index and consulting expert stakeholders to prepare the methodology for the next Access to Medicine Index. Year two is spent collecting, verifying and analysing data from pharmaceutical companies with the help of a third-party research partner. Finally, the results are published in a new Access to Medicine Index, and the cycle begins again.

The Access to Medicine Index is based on the idea that bringing people together to create effective, lasting and transparent solutions can successfully solve medicine problems. By integrating input from stakeholders from all sectors — public, private, non-profit, and government — we are able to create a robust, balanced Access to Medicine Index with the collective aim of improving access to medicine for people in need.

The Expert Review Committee (ERC) is a key component in the stakeholder engagement process. The ERC is made up of individuals from a variety of stakeholder groups, all active in some capacity on the access to medicine agenda. These individuals provide the Access to Medicine Index team with strategic guidance, recommendations and advice on the scope, structure, content and methodology of the Access to Medicine Index assessment. The diverse composition of the ERC ensures that different viewpoints and perspectives are taken into consideration when establishing the latest Access to Medicine Index Methodology.

Figure 5 *Two-year Index Cycle*



Q&A on how the Index works

After the presentation, we took the opportunity for a Q&A on how the Index works. The questions and answers are detailed below.

Why a ranking?
A ranking is a good means of showing that there are differences between companies, which can be an encouragement for others to do more. A ranking is a tool which has proven to be a good tool to get media exposure from worldwide A-media, which is essential for the goal of the Index to create awareness on the role of the industry and to facilitate dialogue on the issue [of access to medicine]. Some participants feel that other models without a ranking could also be considered to create the learning process the Index seeks to facilitate.

How do pharmaceutical companies respond to the Access to Medicine Index?
For the first Access to Medicine Index, eight companies provided data for the Index. Companies that did not provide data were rated based on publicly available information, which obviously affected their ranking. For the second Index, all companies participated in the data collection. Even some companies that were not included in the first Index asked to be rated as well. Companies at the bottom of the list can be leaders in certain areas. The reaction of most is that they want to learn from the Index to improve their performance. One representative of a company at the bottom of the list expressed the view that the position of his company helped him to address the issue of access to medicine in his company. Now companies realise that they benefit from the Index.
The reputation of the industry has improved, based on independent data on their efforts to improve access to medicine. They are no longer perceived as 'the bad guys'

Is there analysis about what companies did to make a change?
Each Index publication not only includes the ranking, but also a profile of each company on their ranking and what caused a change in position in the list. Generally there are two ways to improve a position; firstly by disclosing more information with regard to activities relevant to the Index or, secondly, by starting up new programmes, policies or practices.

What is the impact of the Access to Medicine Index?
One visible effect of the Index is that access to medicine is now a strategic priority for all companies. All have developed policies and programmes and organised ownership at senior level. Some even introduced access criteria in their remuneration policies. More importantly, companies have developed new projects; for instance, one company is organising training for healthcare specialists in India and another has committed to developing HIV medication with parameters suitable for children with HIV.

What do pharmaceutical companies not like about the ranking?
In the pharmaceutical sector, the Access to Medicine Index is now recognised as one of the indices to be taken seriously. One thing that is obviously unpopular is the filling in of the questionnaire to provide the data. This can be a burden for companies, especially those that are not (yet) well organised in this field. In each refining process of the Index indicator, limiting the burden is an explicit aim; for instance, by leaving out indicators that do not provide meaningful data on differences between companies.

How does the Index compare companies that significantly differ in size?
The Index makes adjustments for scale. Two of the smaller pharmaceutical companies are in the top tier of the list, illustrating that size is not what leads to a high position. Some participants question how the Index determines what is good and what is better. The Index uses scoring guidelines for each indicator. The Index is a relative rating. The scales of these guidelines are based on the data provided by the companies. There is no absolute yardstick by which companies are assessed.

Why would companies want to share information on entering new markets?
It is up to companies to disclose information on their commitments and their performance. The degree to which they disclose information is rewarded in the transparency pillar. Some parts of the information, for instance on pricing strategies or market entry strategies, are treated confidentially.

Why are there no seed business experts in the project team?
The Access to Seeds team has seed experts on board. To remain impartial and independent, members in the governance of the foundation can have no ties to the industry. In the stakeholder consultations and the Expert Review Committee, industry representatives are involved. The research capacity of the team will be expanded in 2014 in relevant areas.

Will the Index actually be developed or is it still under investigation?
It is planned that the first Access to Seeds Index will be released in Q1 2015. Based on the stakeholder consultations, the Foundation has concluded that the Index will add value. Funders are willing to support the development of the Index.

The scope of the Access to Seeds Index

After the Q&A, the dialogue focused solely on the scope of the Access to Seeds Index. Input from this dialogue round relevant to the methodology of the Index is specifically addressed in chapter three. The main topics in the dialogue round are detailed below.

More than seeds is needed
Participants underlined that the Access to Seeds Index should focus on more than just seeds. Seeds are only part of what farmers need and want. Just giving them the seeds is not enough. There is a whole set of aspects around creating their business. For instance, access to adjacent technologies is crucial, as is capacity building. The Access to Seeds Index team explains that this is in line with the broad definition of access to seeds used by the Index. It has the dimensions of (1) availability (2) accessibility (3) affordability (4) utilisation (5) profitability and (6) autonomy.

Seeds are regional
Another aspect that is brought to the table is the fact that seeds do not work everywhere, which is a big difference from medicine. How can you measure seed companies on what is outside their scope? The Access to Seeds team indicates that this is a major topic in all stakeholder consultations. Everyone acknowledges that you cannot just ship seeds that, for example, work in Europe to tropical regions. There is also a strong feeling that, with their expertise and facilities, leading seed companies can play a role in improving access to seeds that work in specific regions; for instance, in dedicating R&D time to developing varieties that would work in tropical agro-climatic zones, or supporting the capacity advancement of seed sectors in countries.

Sustainable agriculture as a central question
One participant thinks that 'how can companies help smallholder farmers' is not a good question. It should be about how we can achieve more sustainable agricultural systems where farmers can increase their production in a profitable and sustainable way. Seed companies do have a role to play with regard to this issue, but the target countries' enabling environment would be equally important
according to this participant.

Round Table chaired by Orlando de Ponti at The Netherlands Embassy to the USA, Washington DC

See farming as a business

All farmers are entrepreneurs, so we have to help them to create a business. Many smallholders are small, but also very commercial. As one participant put it, he would rather choose to invest in an insurance programme than make a seed donation. Seed donations do not get you very far. It is often not the adapted variety in the right place. The aim should be to support the search for and development of new inclusive, innovative business models. The Access to Seeds team confirms that the Index does not seek charity or philanthropy, but contributions to or participation in sustainable business models. Also in other stakeholder dialogues, seed donations were not seen as a means to enhance sustainable food security. In the current proposals for the methodology, it is not considered as an indicator. One participant underlines that the Index should make sure that the Index doesn't do harm to the smallholder farmers.

What about the role of governments?

A great part of the dialogue focused on the role of governments. Many company respresentatives feel that the enabling environment should first be rated, to assess whether a sufficient legal framework is in place to protect the companies' investments. Companies cannot operate in an environment where governments suddenly repeal certain laws. Can you blame companies for not going to countries where their property is not protected? Food security is a very political issue, and countries have many policies that will have an impact upon that. Some even put policies in place to prevent foreign seed companies from investing. How is that going to be incorporated into the Index? Some companies indicate that the main reason for doing business in only a limited number of developing countries is the fact that the enabling governmental environment is not in place. Other companies, who are prepared to do business in a greater number of developing countries, mention that there are still plenty of ways of starting a business in these more difficult environments from within the countries, working with local partners: "... the best way to try to change is from within". The Access to Seeds team indicates that the Index focuses on the performance of companies. Currently the WorldBank is developing a Doing Business in Agriculture Index, focusing on the regulatory frameworks of countries. In the dialogue the results of both Indices can be compared. Also, the Index can play a role in creating awareness among governments that they should also play their part in creating an enabling environment and a level playing field.

Small companies play a vital role too

Small companies are also important to the diversification of germplasm over the world, as one participant stated. The Access to Seeds Index should not shine a light on the big companies and leave the smaller companies that also play a role in the shadows. The Access to Seeds team indicates that this was one of the first remarks in the first discussion on the Index at the FAO Ministers' Conference in April 2013. The global index focuses on the leading seed companies who, with their expertise and reach, can play a unique role. For the Index, mutual identification between the companies included is essential. Therefore criteria for business model, size and portfolio are being developed. Currently the additional development of regional indices is being considered, which would enable a focus on specifics in regions and shine a light on companies that play a vital role there. Still one participant noticed, that the competition for better Access to Seeds Index ranking among the large companies (which the Access to Seeds Index team wants to stimulate) could undermine the efforts of local, smaller companies and damage their efforts in biodiversity conservation.

How will the Index deal with GMO seeds?

How is the Access to Seeds Index going to rate companies for making GM seeds available in developing countries, one participant would like to know. The Access to Seeds team indicates that it has developed a position paper on how to deal with GMO. The position on this, as on other parts of the methodology, is not final yet.

The position paper, which has been developed, is subject to discussion in the Expert Review Committee. Basically, the paper proposes that the Index should be technology-neutral: that is to say, it is up to companies to decide with what technologies they feel that access to seeds (in its broad definition) can best be served, and it is up to governments to determine whether they allow GMO products to be used. The Index can reward companies investing in new varieties that fit the needs of smallholder farmers with the use of GMO, when this would improve 'availability'. For efforts made towards improving the accessibility and affordability of these seeds and technologies in countries where governments allow it, companies can also be rewarded.

Take into account that this is a sensitive and highly politicised field of business
A great deal of the dialogue focused on the sensitivities in the business environment in which the seed industry works and how the Access to Seeds Index takes these into account. As one participant put it, there is too much focus on perceived problems that are not real problems. According to this participant the message of the Index to the public is extremely important. Another participant points out that access to seeds is a highly politicised issue. This has to be recognised, because it can backfire on the smallholder farmers. The way the Index is constructed is important for this. It can work very well and address important issues. Seed companies and their technologies are under attack worldwide, and the same goes for the issues around patents. Putting these companies in the spotlight can provide a big bull's-eye. Data can be used wrongly and differently from what is intended. There is a concern as to how this will go. The Access to Seeds team recognises that the positioning and framing of the Index is extremely important. The Access to Medicine Index has learned that an Index can help to shine a different light on an industry. The Index is an independent platform that is considered to be a more trusted source of information than the industry itself or NGOs. If a company, which people think should be at the bottom of the list instead ends up high on the list, the Access to Seeds Foundation has to explain how this came about.

II THE ROLE OF LEADING SEED COMPANIES IN THE BROADER PERSPECTIVE OF ACCESS

Despite the complexities of the issue and the different roles for multiple stakeholders, the participants of the Industry Round Table acknowledged that there is a role to play for leading seed companies in improving access to quality seeds for smallholder farmers in order to increase their yields and incomes. In the second dialogue round, we elaborated more on what this role could be and what companies could do. To start off the dialogue, Julian Kinderlerer reported on the results of the Access to Seeds Round Table with farmers in Addis Ababa.

Six dimensions of Access to Seeds

As a starting point for this dialogue, we took the results of the Addis Ababa Round Table. In Addis Ababa the farmers' representatives formulated the needs and challenges of smallholder farmers in relation to access to quality seeds. There was broad agreement that access is about much more than simply access to seeds and that questions concerning availability and affordability of seeds, access to knowledge and techniques, etc, play an important role as well. In Addis Ababa access was eventually defined along six dimensions and all challenges were categorised into these dimensions: availability, accessibility, affordability, utilisation, profitability and autonomy.

1 **Availability:** the essence of the dimension of availability refers to the development of improved varieties that are suitable for the needs, preferences and local conditions of smallholder farmers. These preferences are more than simply achieving better yields. Farmers would like to have a wider choice of varieties. There is a strong desire to improve local varieties: when breeding to meet local demands, it is important to check what is already locally available.

2 **Accessibility:** accessibility is strongly related to efficient and reliable distribution systems. Is the seed supply secure (also over time), are the seeds of guaranteed quality and is the supply available at the time that the farmers need it? Too often seeds appear to be of poor quality, impure, fake or contaminated. Other aspects of accessibility are a free choice of seed supplier(s) – indicating that the market allows for multiple seed suppliers – and the desire for local seed multiplication in order to minimise the risk of suppliers being out of stock.

3 **Affordability:** affordability is a very straightforward dimension. It refers to a fair and affordable price, access to credit to buy seeds upfront and insurance to ensure that loans can be paid back if hazards occur along the way.

4 **Utilisation:** utilisation refers to a diversity of extension services and capacity building. Important aspects of this are agronomic advice, capacity building in the field of integrated crop management and after-sales and feedback systems about the experiences with the use of the seeds and with the distribution system. Co-operation with local partners is essential for knowledge transfer and sustainability of the solution.

5 **Profitability:** profitability refers to the profitability of the crops that farmers can grow with the seed. Can they make a profitable business with their seed? Do they have access to output markets? But also, do the seeds produce crops that can be marketed, for instance because they have postharvest qualities such as a long shelf life?

6 **Autonomy:** the representatives of farmers have explicitly added autonomy to the dimensions of access. Autonomy refers to farmers not only being end-users but also being producers of seed. Crucial to this aspect are the community-based seed systems, for which currently legal recognition does not exist. In the current legal systems – both in the international framework and in the many local frameworks – only the public and private seed systems are recognised.

The participants of the Industry Round Table confirmed that in their view, access to seeds is a broad concept. Some added that the dimensions should get a proper place in the domains that the Index addresses in its methodology. One aspect was added to the dimension of utilisation: next to extension services and capacity building, access to adjacent technologies such as fertilizer and agrochemicals is also an important topic in this dimension. On the dimension of affordability it was noted that it is not so much price, but return on investment, that is important for a farmer as entrepreneur.

Figure 6 *Common understanding of access to seeds as defined in the Farmers' Round Table in Addis Ababa*

Availability	Do the seeds exist that **fit farmers' needs**?
Accessibility	Can farmers **easily obtain** the seeds they need?
Affordability	Can farmers **afford to use** quality seeds?
Utilization	Do farmers have **capabilities** and enabling environment?
Profitability	Can farmers make a **profitable business** out of it?
Autonomy	Do farmers as user and producer have **freedom of choice**?

Food and agriculture are highly politicized and cultural topics

By Julian Kinderlerer, Emeritus Professor Cape Town University

For the Industry Round Table, a special keynote speaker was invited who attended the Addis Ababa Round Table conference as an independent observer in order to report on the Addis Ababa findings to the industry representatives in Washington DC. This independent observer was Julian Kinderlerer, Emeritus Professor of IP Law and former Professor of Biotechnology & Society, now also President of the EU European Group on Ethics in Science and New Technologies. He is broadly recognised for his work as an IP lawyer and other related work in the field of plant breeding.

Julian Kinderlerer stressed a couple of important messages from the Addis Ababa Round Table and placed the issue of food security and the growing need for food into a broader perspective. First of all, he indicated that the primary purpose of both meetings was to improve the lives of smallholder farmers and improve the quality and quantity of that which they produce. He acknowledged that the subject of food security and raising yields in developing countries is the joint responsibility of governments, companies, farmers and consumers.

Food is a highly politicised subject. In many countries food and agriculture are important tools of governance. Food is much more than that which is eaten, it is part of culture, and as those attending the Addis Ababa conference asserted, it is 'food for the soul'. In that sense local varieties of crops, or even local varieties of local crops, are important to those who grow them and those who use them. Another crucial component of the dialogue about food and seed is the emotive element of food that is related to who and what we are. This emotion is often expressed as outrage when related to risk assessment of new technologies such as genetic modification (GM). It finds its origins in the feeling that the common good (nature, biodiversity, etc) should not be harmed. It is almost certain that farming practices need to be changed in order to improve our stewardship of the environment.

Besides food being a part of culture, food habits around the world are also changing in a more general way: as incomes rise, the consumption of meat increases. This has a large impact on the available space for agriculture and the production of food. Also, demographic changes influence the total demand for food: increasing population density and growing urbanisation. More food needs to be produced by fewer people and to be distributed into large urban areas.

Julian Kinderlerer reporting on the results of the Farmers' Round Table in Addis Ababa

When addressing the question of what leading seed companies can do to improve the lives and yields of smallholder farmers, Kinderlerer reported on the needs and challenges formulated in Addis Ababa as summarised above. He indicated that the essence is to do more than just provide seeds. "A way needs to be found to ensure that the best seeds are available on the farms that smallholders see as part of their culture, but that enable them to grow crops that feed them, their families and their local markets. If that means that varieties from outside need to be imported and crossed with local varieties, so be it. Smallholder farmers need to be provided with independent advice and support and other means such as access to credit and insurance".

Concerning the issue of IP, he introduced the concept of strategic philanthropy: on the one hand everyone needs to realise how much time, effort and money is put into developing new varieties. There is no way that companies are going to produce new, effective varieties without the protection of their rights. On the other hand, there needs to be a way to provide smallholder farmers with affordable seed. "'Strategic philanthropy' means that we have to give it away now, so that they can buy our seeds in 10 years' time".

The role of leading seed companies

In the second dialogue round, all participating companies underlined that they also see access in a much broader perspective than access to the actual seeds alone. They see a role for leading seed companies in addressing the needs of smallholder farmers. However, they once again emphasised that food is a highly political topic, even more so than medicine. Some also indicated that the Access to Seeds Index could work well, if the construction is right. Topics in the dialogue are detailed below.

What to expect from seed companies?
A question that was brought up deals with scale. Many of the contributions seed companies can make are very small-scale. What is reasonable to demand from seed companies? "We cannot transform the business in a couple of years". And how would you compare a company that invests more in R&D to a company that does more to reach smallholders? The Access to Seeds team explains that the Index is a relative ranking, without preset yardsticks. It does not prescribe certain remedies; it asks companies what their commitments and performances are on certain domains. Separate technical areas cover, for instance, R&D and reaching smallholders. A company can be leading in one area and be acknowledged for that, while another company takes the lead in another area. Some participants feel that only the big companies can afford to go into Africa and Asia. One of the representatives of smaller seed companies indicates that this need not be the case. It is all about building up the capacity in your company to scale up activities.

Partnerships in every field
According to some participants, it is essential to consider the issue of partnerships in every field. Improving access to seeds and reaching a large amount of smallholder farmers is a systemic and broad approach in which working in partnerships is essential. "There are lots of things you can do, such as smart collaborations in breeding, for instance". Other examples mentioned were partnerships in extension services, in providing access to insurance or providing access to adjacent technologies. Seed companies pointed out that they are already working in various public-private partnerships with universities, governments, (international) research institutes and NGOs. These partnerships are said to play an important, strategic role for the seed industry and simultaneously improve access to seeds.

Seed donations will not get you far
According to most participants, seed donation is not the way to go. It will not help farmers to create a sustainable business. Apart from that, seed donations often do not bring the right seeds to the right place. According to one participant, seed donations to small companies could help them to develop new products, "but you should not spoil these upcoming enterprises".

Importance of finance

The industry can play a role in affordability. This is not so much about pricing, but creating an opportunity for farmers to get a good return on investment. Access to loans and insurance are part of that. Companies can play a role in developing financial instruments in partnerships. Farmers are willing to invest and buy more expensive seed when the potential yield growth is demonstrated to them. Affordability can also be enhanced by providing seeds in smaller quantities, as some companies state they already do.

Extension services in partnership

Reaching millions of farmers is not something a company can do by itself. For the training of farmers, governments are an important player too. Companies could get involved in training the trainers, supporting education to train the next generation.
A great opportunity could also be to use bigger farmers as a platform for extension services. Stewardship recognition is important and extension should include all inputs and expertise. The role of seed companies in this field needs to be clearly defined, not only by seed companies themselves, but also with input from farmers, based on what they need.

Innovative, inclusive business models

Rather than 'helping farmers', the Index should focus on approaches that allow farmers to create a sustainable business and increase their yields in a sustainable way. Companies should look for innovative, inclusive business models. This includes, among others, the development of new ways to improve farmers' access, the development of markets throughout the value chain and the creation of long-term customer dedication. Employing these models will lead to a positive long-term effect for seed companies as well as for the farmers in the impact areas.

III INPUT FOR THE METHODOLOGY

The final dialogue round focused on input for the methodology of the Index. The input concentrated on three topics: the scope of the Index, the technical areas of the Index and possible indicators for each technical area. After plenary dialogue, participants worked in two groups to provide input on the preliminary technical areas and indicators.

Reflections on the scope of the Index

The scope of the Index was discussed at many points throughout the Round Table, especially the company scope, crop scope and farmer scope. Input for defining the scope that was given throughout the day is detailed below.

Company scope

Which companies does the Access to Seeds Index look at? Participants underlined that defining 'leading seed companies' is very important. Of course the size of a company, in terms of revenues, plays a role. According to some, more important are the capacities of companies to play a role in access to seeds. In the dialogue it was concluded that the Index should only include what are termed 'integrated' companies. These are companies that integrate all major seed activities into their business models, from R&D and seed production and processing to marketing and distribution. Secondly, there are also differences in financial capacity to consider. Some participants stated that only the big six seed companies have the capacity to make considerable investments in Africa and Asia. At the same time, the participants noted that smaller companies have an important role in ensuring diversification of germplasm all over the world and this shouldn't be neglected. The Access to Seeds Index methodology will adjust for size differences. Companies that fall out of the scope might be given the opportunity to apply for a voluntary assessment by the Access to Seeds Index.

Industry Representatives providing input for the Index methodology

Crop scope
The current proposal is to focus on seeds for staple crops and vegetables. Some participants suggested that the Index should look at individual crops and, for instance, focus on certain 'strategic crops'. The Access to Seeds team will look at the possibility of working with a more detailed crop focus. The role of local varieties in developing countries was also pointed out. While food is emotion, as Julian Kinderlerer pointed out, it does not mean that companies shouldn't cross-breed local varieties. When discussing product types, some issues around GMO varieties were raised. As pointed out before in chapter one, the Access to Seeds Index is technology-neutral.

Farmer scope
The special position of female farmers and their activities was highlighted, as well as the importance of the 'next generation' of farmers. These farmers need to be provided with the ability to handle seeds, which requires an integrative approach. When defining farmers it was noted that, especially in Africa, smallholder farmers might be small but are also commercial businessmen. It was obvious that the Access to Seeds Index does not focus on the 10% of large farmers in developing countries but on the 90% of small-holder farmers, whether subsistence or small commercial farmers. It is about providing them with the opportunity to create a sustainable business and raise them out of the level of 'subsistence'.

Dialogue on the Technical Areas

The Index methodology will consist of a number of what are referred to as technical areas. These are clusters of the most important domains related to access to seeds. The technical areas link society's expectations on the role of the industry to concrete business activities.

Based on the desk research and an extensive stakeholder dialogue process, eight preliminary technical areas were presented at the Industry Round Table in Washington DC:

1. Management
2. Public Policy & Market Influence
3. Germplasm
4. R&D
5. Patents & Licensing
6. Pricing, Production & Distribution
7. Extension Services
8. Capacity Building

The participants noted that these technical areas do not sufficiently incorporate the six dimensions of access. One participant considered them to be textbook knowledge, lacking innovation. For instance, the importance of finance for affordability is not obviously included in these areas. Another participant proposed the use of the six dimensions of access as technical areas instead. On the other hand, it was understood that the Index is meant to influence behaviour and business models of seed companies, and therefore the technical areas should clearly focus on business activities. Another suggestion was to make "innovative business models" a distinct technical area. In the methodology framework, the Access to Seeds Index uses a strategic pillar that gives credit to all forms of innovation in each technical area. A suggestion is to rename this pillar 'Business Model Innovation' to reflect that the Index wishes to praise companies for any novel and leading initiatives that will make an impact on access to seeds.

This construction of the framework will then provide attention to innovative business models at every possible level of activities.

Based on all input, the technical areas are reformulated and regrouped by the Access to Seeds team, incorporating the access dimensions with the business processes. The exact formulation and focus of the technical areas is subject to the expert review process that starts after the Round Table and will be finalised by the Expert Review Committee in March 2014. The improved version of the technical areas is detailed below. The first to technical areas address to the way companies see a role in the global challenge of food security and how they act upon it. The latter five technical areas focus on access to seeds commitments, programmes and activities.

1 **General global food security commitment**
This technical area strives to capture the companies' overall commitment to play a role in achieving global food security, sustainable intensification and access to seeds for smallholder farmers. The existence of leadership incentives in these fields could be an indicator in this technical area. The existence of companies' global food security or access to seeds programmes in impact areas could be another. Participants also mentioned the existence of a company advisory board for access issues and a percentage of investments in CSR or capacity development projects as indicators in this area. Stewardship of GMO should be considered, as it raises many issues.

2 **Stakeholder engagement, public policy, market influence**
This technical area strives to capture the companies' overall management of external relationships and its activities in the public domain that have an impact upon global food security and access. Transparency with regard to the companies' engagement is especially important here. Transparency of market influence, investments, labour standards, government influence, farmers' rights and breeders' rights could be included as an indicator. Following and advocating uniform seed regulations could also be important indicators, according to the company representatives. The involvement and leadership of seed companies in seed trade associations was mentioned as another indicator. With respect to leadership, this meant the involvement of senior management of seed companies.

3 **Intellectual Property (IP) and genetic resources**
This technical area focuses on the companies' intellectual property protection policy and handling of genetic resources with regard to their impact on access to seeds. The first point that was made is that IP is bigger than patents. Possible indicators in this area are the use of humanitarian licenses and obedience to local laws. In terms of germplasm, there should be 'free access, but not access for free'. This means that companies should make their germplasm available in the impact countries, and differences in accessibility could then be measured. Another indicator mentioned by participants was the existence of local breeding programmes in crops and areas where the companies were already active. Having top-quality product stewardship when doing all this is another indicator.

4 **Research & Development**
This technical area concentrates on the companies' efforts in research aimed at developing new or adapted varieties for general or orphan crops to improve availability of seeds that fit the needs of farmers in Index countries. This technical area strongly relates to the availability dimension of access. The participants stressed the importance of partnerships with national universities, CGIAR, NARS and development organisations when doing so. Indicators, along with partnerships, could be the percentage of R&D spent in and for a specific 'impact area'. R&D for orphan crops and locally-adapted varieties are other important indicators mentioned. As was including the potential and integration of adjacent technologies in the R&D.

5 Provision, packaging and distribution

This technical area strives to capture the companies' commitment to improve the accessibility of quality seeds to farmers in Index countries. Provision, packaging and distribution are strongly related to the dimension of accessibility. Indicators mentioned here are the encouragement of local production, improved price/quality ratios and seed availability in small packages.

6 Enabling strategies for farmers

This technical area strives to capture the efforts of companies to enable farmers to adopt new technology and build a profitable business out of it. It relates to the access dimensions 'utilisation' and 'profitability'. An important viewpoint when discussing this technical area is that farmers are entrepreneurs. It was stated that farmers look more at the return on investment than the actual seed price. Related to this, indicators such as supporting the availability of micro-finance and insurance programmes were mentioned. Another indicator could be the improvement of access to output markets for small-holder farmers. It was pointed out that indicators focusing on extension services should follow an integrated approach with adjacent inputs and technical expertise. These extension services could be provided by the companies, for instance by developing 'training the trainer' programmes. Public-private partnerships were also mentioned as an indicator here. Participants highlight the importance of close relations with existing extension, government and university researchers in developing extension programmes. Field demonstrations could be a good way to actually reach farmers, and the participants added that a focus of these demonstrations on 'lead farmers' could be an effective way of working. Another indicator mentioned is the quality and stewardship shown in all these services.

7 Capacity advancement in local seed sectors

This technical area focuses on the companies' initiatives that are conducive to capacity advancement in seed sectors in the Index countries. It touches on the dimension of 'autonomy'. Many of the indicators mentioned in the brainstorm – which is being discussed on the next pages – were focused on education. The number of students from developing countries who are trained as interns, and partnerships with the public sector specifically aimed at young people, were brought forward as possible indicators. Capacity improvement of agricultural schools and local universities was also mentioned. Participants also raised the importance of actual in-field support instead of solely donating to developing countries.

Overview of proposed indicators for each technical area

As the final part of the agenda during the Industry Round Table, the participating companies and associations were asked to brainstorm on which indicators would work well to measure activities in the different technical areas. The other participants and observers did not take part in this brainstorm. An overview is given below of the indicators that were developed in the two breakout groups. Please note that these are input for the expert review process that starts after the Round Table and are not final proposals. Some of the indicators are formulated as a concrete activity; for instance, 'existence of train the trainer programmes'. Indicators for the Access to Seeds Index will generally not focus on such concrete activities, but be formulated in a more general way, such as 'the company has programmes in place to enhance the quality of extension services'.

	TECHNICAL AREA	PROPOSED INDICATORS
1	**General global food security commitment**	· Existence of advisory board for access issues · Existence of leadership incentives · Access to seed programmes in selected impact countries · A percentage of investments in CSR projects
2	**Stakeholder engagement, public policy, market influence**	· Participation in Public Private Partnerships (PPPs) · Outreach to shape government policy on IP and breeders' rights enforcement · Transparency on market influence · Existence of workable principles of responsible investment · Existence of fair labour standards · Trade association membership and leadership (involvement of senior people) · Support of uniform seed regulations and transparency on IP, testing, UPOV91
3	**Intellectual property and genetic resources**	· Offering free access to patents but not access for free · Adding PVP and giving credit for breeding allowances under PVP · Having top-quality product stewardship · Availability, usefulness and access to germplasm · Local breeding if active in crop and region · Providing legal and customary means when accessing local germplasm · Making own germplasm available as per local law
4	**Research & Development**	· Having R&D programmes on locally important tropical crops · Performing local research and developing locally adaptable varieties · Involvement in partnerships with NGOs, universities, CGIAR, NARS · Spending a percentage of R&D in and for impact areas · Integration of R&D with adjacent technologies
5	**Provision, packaging and distribution**	· Encouragement of local production · Improvement of price/quality ratios · Product availability in small packages

6	**Enabling strategies for farmers**	· Existence of insurance to enhance farmers' risk mitigation · Existence of micro-financing programmes and barter · Provision of services such as machinery · Relationship of company extension services with in-country services · Service support for cultivation and technology use · Existence of 'train the trainer' programmes · Quality and stewardship of programmes · Existence of field force demonstrations for lead farmers · Integration of extension services with adjacent inputs and technical expertise · Improvement of farmers' access to output markets
6	**Capacity advancement in local seed sectors**	· Number of students from developing countries trained as interns · Education programmes and school support for farmers and growers · In-field support with access to free know-how · Capacity enhancement, testing services for local governments, universities · Public-private Partnerships focused on youth

IV OBSERVATIONS BY THE ACCESS TO SEEDS INDEX TEAM

Companies emphasise that they operate in a sensitive field. The Access to Seeds Index team is aware of current perceptions and controversies. As one stakeholder put it in the preceding consultations, if the 'Access to Seeds Index could only contribute to achieving more realism in the debate about seeds, that would be a major contribution'. The ultimate goal of the Access to Seeds Index is to improve access to knowledge and technologies for smallholder farmers in developing countries so that agricultural production can be increased. This goal can also benefit from more balanced views on how seed companies can contribute and the potential of the products and technologies they deliver to the farmer. As an independent and impartial platform, the Access to Seeds Index can and will play a role in this.

Access to Seeds is about more than providing access to seeds itself. Companies advocate the need for a broader view. This was also highlighted in the preceding stakeholder consultations and resulted in the Access to Seeds definition with its six dimensions: availability, accessibility, affordability, utilisation, profitability and autonomy. This Industry Round Table added an extra aspect to the utilisation dimension: namely, 'access to adjacent technologies'. On affordability, companies underlined that this is about more than price. For farmers, who are entrepreneurs, it is about return on investment and access to finance, loans and insurance.

Seed companies acknowledge that they have a role to play. The Access to Seeds Index can facilitate in defining their responsibility. Rightfully so, companies point out that they cannot do this alone. Working in partnerships is vital and other parties such as governments also have a role to play. The Access to Seeds Index focuses on the contribution of seed companies, but will also include information on other sources in the dialogue on its findings, like the Doing Business in Agriculture Index on the state of the enabling environment of the WorldBank.

Based on this Industry Round Table the technical areas are refined, reflecting more the dimensions of Access to Seeds, whilst still linking them to concrete business activities. The suggestion was made to make 'partnerships' one technical area. Since they need to be considered in almost every field, it is more a topic that should be reflected in the indicators throughout all technical areas. The seventh technical area, focusing on capability advancement in local seed sectors, will address partnerships to improve quality levels of institutions and companies in the focus countries.

From the stakeholder consultations and field trips, the Access to Seeds team reached the conclusion that currently already more is happening in developing countries than companies and also this Round Table indicate or maybe are aware of. It is essential to create more transparency on what is happening and what we can learn from it, so we can scale and speed up the process of reaching smallholder farmers in developing countries.

The focus of the Access to Seeds Index is not on 'helping farmers' but rather on identifying and rewarding new innovative, inclusive business models that enable farmers to create a sustainable business, and on encouraging seed companies to do more in this field and accelerate the process. Companies in the Round Table also underlined the need to look at business model innovation. One of the strategic pillars in the methodology looks at 'innovation'. A suggestion is to rename this pillar 'Business Model Innovation' to reflect that the Index wishes to praise companies for any novel and leading initiatives that will make an impact on access to seeds. Eventually the Expert Review Committee will make the final decisions on all methodology related issues.

APPENDIX

APPENDIX I
LIST OF PARTICIPANTS AND OBSERVERS

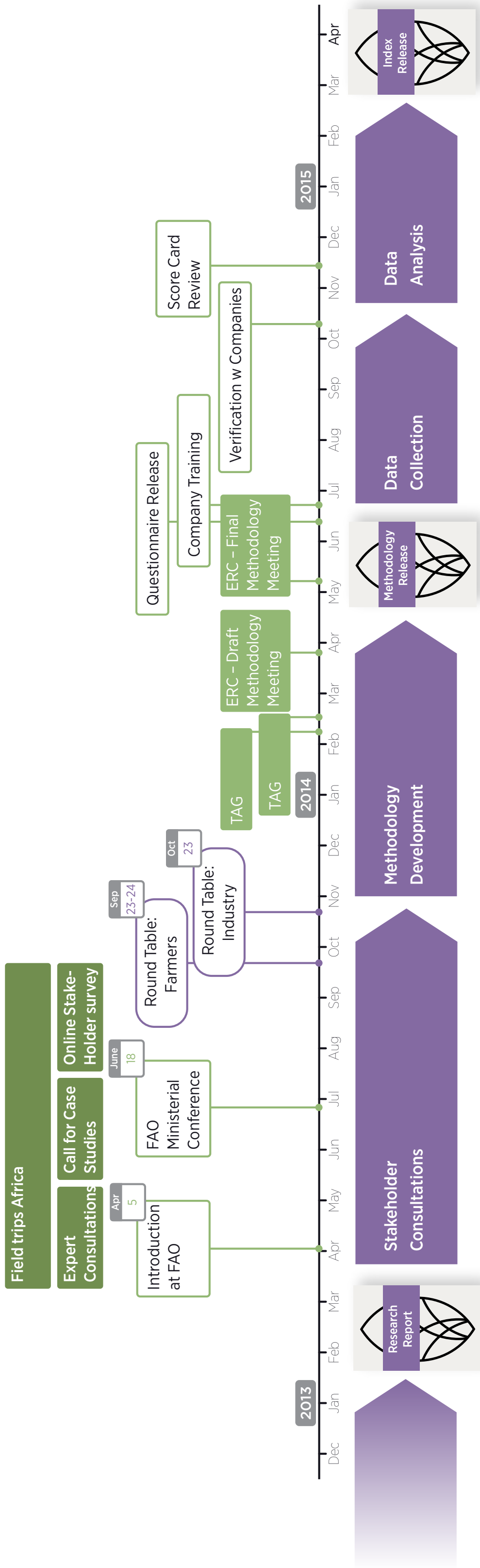
Companies and associations

Nr.	Titel	First Name	Last Name	Organization	Position
1	Mr.	John	Atkin	Syngenta	COO
2	Mr.	Gerard	Backx	HZPC Holland B.V.	CEO
3	Mrs.	Natalie	Dinicola	Monsanto Company	VP Sustainable Agriculture Partnerships and Africa Corporate Affairs
4	Mrs.	Bettina	Haussmann	KWS	Capacity Development Manager
5	Mr.	Tim	Johnson	Illinois Foundation Seeds	President, President ISF
6	Mr.	Robert	Keene	Enza Zaden	Director
7	Mr.	Bradley	Kurtz	Dupont Pioneer	Corporate Counsel and Senior Manager Intellectual Property
8	Mr.	Andrew W.	LaVigne	ASTA	President and CEO, designee for the SAA
9	Mr.	Kinyua	M'Mbijjewe	Syngenta	Head of Corporate Affairs Africa
10	Mr.	Joost	Pekelharing	EastWest Seed	CEO
11	Mr.	Mathew	Perin	Bayer Cropscience	US based Government Relations Manager
12	Mrs.	Jean	Reimers	Bayer Cropscience	Director Government Relations

Other Participants & Observers

Nr.	Titel	First Name	Last Name	Organization	Position
13	Mr.	Bouk	Berns	Netherlands Embassy to the USA	World Bank Liaison
14	Mrs.	Denise	Dewar	Croplife International	Executive Director for Plant Biotechnology
15	Mr.	Orlando	De Ponti	Independent Consultant Seed Industry	Independent Consultant, past president ISF
16	Mrs.	Caroline	Feitel	Netherlands Embassy to the USA	Advisor Agricultural Affairs
17	Mr.	Gerbrand	Haverkamp	Min. of Economic Affairs of the Netherlands	Policy Officer CSR, Agri Commodities & Food Security
18	Mr.	Deniz	Horzum	Access to Seeds Foundation	Researcher
19	Mrs.	Sarah	Hull	Syngenta	Global Head of External Affairs
20	Mr.	Julian	Kinderlerer	University of Capetown and Delft University of Technology	Emeritus Professor
21	Mr.	Wim	Leereveld	Access to Medicine & Access to Seeds Foundations	Founder
22	Mr.	Ed	Monchen	Access to Medicine Foundation	COO
23	Mr.	Martin	Olde Monnikhof	Netherlands Embassy to the USA	Agricultural Counsellor
24	Mr.	Mumukshu	Patel	Bill & Melinda Gates Foundation	Program Officer Agricultural Policies
25	Mr.	Ido	Verhagen	Access to Seeds Foundation	Project Manager Access to Seeds Index
26	Mrs.	Joke	Vroegop	Access to Seeds Foundation	Stakeholder Manager

APPENDIX II
DEVELOPMENT PROCESS ACCESS TO SEEDS INDEX



APPENDIX III
REACTION FROM THE ISF TO THE DRAFT REPORT

The International Seed Federation wrote a letter on behalf of its members in response to the Report of the Washington DC Round Table. With permission of the ISF the full letter is published below.

SEED IS LIFE
ISF
International Seed Federation

International Seed Federation

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Access to Seeds Index
Ms. Joke Vroegop
Stakeholder Manager
Spaarne 35
NL - 2011 CD Haarlem
The Netherlands

Nyon, 29 November 2013
TJ/mp

Dear Madam, Dear Sir,

ISF would like to follow up on the Access to Seeds Index (ASI) industry consultancy meeting at Washington DC, 23 October 2013. Despite the constructive discussions, I would like to express our serious concerns on behalf of ISF about the process and the content of the ASI that you plan to implement.

At ISF, we recognize the importance of seeds and genetic improvement as part of the solution to relieve the food security challenges which we are facing. However, seed in our opinion is only a small part of a much more complex solution to increasing agricultural output. We strongly believe that the Index will not by itself help the smallholder farmers develop their agriculture production and relieve the global food security problem. Good seed can only produce wealth in combination with access to land and markets with a good knowledge base that supports improved agricultural practices.

We addressed several concerns in the meeting and we feel they have not received due attention during the meeting. We have strong concerns whether they can all be addressed in the criteria for a balanced Index.

The following are concerns we would like to address in the hope that you will seriously consider them in the decision process.

Feeding the world is a major issue for plant breeders already, but cannot be made the responsibility of breeders alone. Solving the food security problem is far more complex than making new varieties: Reducing waste of food, plant protection, plant nutrition, agricultural practice, etc.

Plant breeders consider seed a very important contribution to sustainable intensification. However, this is only possible in an appropriate agricultural setting. New varieties need the respective agricultural practice to realize their genetic potential in the form of higher and more reliable yields, better quality and reduced inputs.

Providing the agricultural practice is at such an important level that the establishments of on-site breeding, seed production and distribution systems are essential. This requires a vast investment and a long term commitment which is only possible if the political and the legal frameworks favor such investments (which is a big difference compared to medicine/pharma where product development can be done anywhere). The seed industry will be able to sustainably contribute to the solution only if these crucial conditions are met:

1/3

The need for an integrated approach to agricultural productivity recognizing that the major impediment to availing seeds in many countries is not the lack of interest of the seed companies, but rather the lack of enabling policies and regulations. Seed registration laws, IP regulations, anti-counterfeit systems, contract law, and agricultural policies are poor or absent in many countries and the Index needs to take this into account.

The need to support seed markets; the Index should not undermine the development of sustainable seed markets through promoting donations, or by incentivizing seed companies to view African smallholder farmers as objects of charity rather than as customers.

The need to be discerning; some companies are global whereas others are regional. Some have no strategic interest, nor the genetic resources for certain developing markets while for others seed is a small part of their product portfolio. The size, scale and global strategy of the seed companies need to be factored in the Index.

The need to be impactful; does the scale really improve access to seed in a sustainable way? Do farmers really improve their livelihoods? It is important that the initiative develops metrics to measure and report its own impact.

The ASI Foundation needs to be sensitive that a ranking scale will be used negatively by activist NGO's against large, small, multinational and local seed companies. Rather than a ranking, the seed companies suggested a grouping or categorization in bands along certain criteria may be more useful.

Ranking of companies is very likely to be strongly linked to the turnover of the companies, which means "high turnover, high ranking". This is particularly relevant because the difference in turnover within the group of TOP 16 companies is much larger than in the pharma-industry.

Independent and reliable sources of information will be much more difficult to find due to the structure of the seed industry : Among the Top 15 seed companies, only three are both publicly listed companies and with seeds representing more than 25% of the global company turnover. This means that for the 12 other companies, the information about their seed activities will be either minor compared to the global reporting of the large, publicly listed companies (whose dominant activities are chemicals, pharma, etc), or not available as they are privately held. In addition they are relatively small in size since only 7 seed companies have global seed sales above 500 M USD. We really question how relevant an Index can be with such heterogeneous sources.

We are concerned and would question how the ASI could take into account the facts that (i) by design, and directly linked with the germplasm pool they have access to, each seed company can only deal with a limited number of crops, (ii) the breeding industry is contributing to the solution against global food scarcity by increasing the productivity in well-developed agricultural systems, and (iii) non food crops (cotton, forage grass) are also important for agricultural income in some LDCs.

A stable political, legal and IP framework for a sustainable seed industry is an essential prerequisite for any plant breeding to reach smallholder farmers. How can an Index contribute to this aspect?

The management team of ASI appears well informed about CSR issues in other sectors, but appears not to have a thorough understanding of the seed industry, nor the needs of smallholder farmers and the diversity of farming systems in different parts of the developing world. How will the team acquire such knowledge?

We are worried from the outcome of the Washington meeting that ASI is still not very concrete. There are still a number of open basic questions and no concepts available to answer those questions.

The approach to development and validation of the Index methodology is in our opinion is based on an extremely ambitious timeline.

The risk of a bad perception/misinterpretation of the Index in the public domain does not seem to have been considered.

2/3

Today, some NGOs criticize any contributions by (public or private) breeders as some NGOs want small holder farmers to use local traditional varieties that are mostly non improved varieties that do not benefit from the use of wide genetic diversity and the latest technologies. Such NGOs will use the ranking of the Index to communicate that the companies highly ranked try to make smallholder farmers dependent on their seed. The Index may create a reputation of the seed industry as a whole, and when that happens will not contribute to enhanced CSR, and even create distractions from the real problems related to food security.

Seed is a theme that is highly politicized by some groups. An abundance of complementary information will have to be provided together with the Index, in order to avoid harm to smallholder farmers and to companies, including smaller companies working in the target region;

The following alternatives to the Index were suggested for consideration during the meeting:

Develop learning platforms or enhanced discussions within existing networks in targeted regions on how to enhance smallholder farmers' access to improved seed or to sustainable agricultural intensification.

Work to improve supporting policies – legislation and regulation - for seed system development in LDCs.

In conclusion, it is apparent to the representatives from the global seed industry that have participated in the various meetings with representatives from the Access to Seed Index effort, that the Index faces tremendous challenges with regard to accounting for the specific nature of the seed sector. This is very different from the pharmaceutical industry for which the first Index was developed. We sincerely doubt whether solutions can be found to create an Index that will be fair to the companies reviewed, that do not lead to perverse incentives, and that has measurable impact on poverty reduction and food security.

We at the International Seed Federation, strongly encourage you to consider our concerns on behalf of the global seed industry.

A very broad and diverse seed industry is needed for the best Access to Seed for all of us around the world.

Seed is Life!

Best regards,

Tim Johnson
ISF President

Copy: Messrs. I. Verhagen, D. Horzum, Access to Seeds Foundation
Mr. G. Haverkamp, Min. of Economic Affairs of the Netherlands
Mrs. C. Feitel and Messrs. B. Berns, M. Olde Monnikhof, Netherlands Embassy to the USA
Mr. M. Patel, Bill & Melinda Gates Foundation

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APPENDIX IV
REACTION FROM ATSI TO THE ISF

The reaction by the Access to Seeds Foundation on ISF's letter is published below.

Access to Seeds Index

ISF
Mr. Tim Johnson
President
Chemin du Reposoir 7
1260 Nyon
Switzerland

Haarlem, 6 January 2014

Dear Mr. Johnson,

Thank you for your letter of 29 November 2013, giving ISF's views on the initiative to develop the Access to Seeds Index. The development is based on a comprehensive process of stakeholder dialogs and the industry input in this process is very valuable and much appreciated.

The Access to Seeds Foundation has chosen to involve the seed industry at an early stage. The ISF and a selection of seed companies were involved in a first round of consultations early 2012. In 2013, companies were invited to submit case studies, and companies were invited to participate in our Washington DC Round Table. This means that the industry is involved in stages when indeed there are still questions open, as you mention in your letter. We realize that this can be challenging. At the same time, it also gives the industry, as well as other stakeholders, room to offer input on the design and methodology of the Index.

The Access to Seeds Index aims to bridge the gap between the leading seed industry and the smallholder farmer. Smallholder farmers benefit from the knowledge, technologies, varieties and seed of the seed industry. Indeed this is not something the seed industry can do on its own. Clearly governments have an important role to play. Governments have made major commitments in multilateral forums such as the FAO, CBD and through the MDGs. Keeping governments accountable is important and does in fact occur through organizations, like the World Bank, which are well positioned to do so.

Raising agricultural production in the developing world is an important piece of the puzzle called global food security, and high-yielding crop varieties are an essential ingredient for this, as was also indicated in the recent report by the UN High-Level Panel on the Post-2015 Development Agenda. As the High-Level Panel also stated, reaching millions of smallholder farmers requires market-based approaches; bringing the private sector in is essential. Local actors have a role to play, but leading international operating companies can also play an important role in lifting professional levels, bringing in technologies and linking markets.

We have taken note that ISF acknowledges the role for the seed industry in its mission: 'The seed industry plays an increasingly vital role in the global pursuit of sustained development and well-being of the planet and its people in an environmentally-responsible manner. Apart from its traditional role of being one of the major contributors to sustainable food production, the seed industry is now also at the forefront of developing technological innovations.' Participants in our Washington Round Table also underlined that there is a role to play. The Access to Seeds Index aims to facilitate a dialog on this role and responsibility; on where companies can play a role and where their responsibility ends; or where others should act to enable the private sector to play their part.

The Index does not claim that by itself it helps smallholder farmers to develop their agricultural production and solves the global food security problem. It proceeds from the belief that these farmers

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Access to Seeds Index

can benefit from the knowledge and technologies of leading seed companies, and it wants to create transparency on the role companies are currently playing and the extent to which companies are able to create inclusive new business models. By doing so it also aims to illustrate that companies are playing a role, can play a role and have to be enabled to play their role. As one stakeholder put it: 'If the Index could only help to open the eyes of public sector officials as to the potential of the private sector, that would be a major step.' Or as another stakeholder said: 'If the Index could only help to introduce some transparency and realism into the debate that is dominated by perceptions and controversies, that would be a major contribution.'

To develop their agricultural practices, smallholder farmers depend on more than access to quality seeds of improved varieties, as you also state in your letter. In the stakeholder dialogs a broad view on 'access' was thus developed. During the Washington DC Round Table, companies participating also agreed that this broad approach is necessary. The Index will focus on matters that are within the sphere of seed companies' influence. It is evident that stakeholders also see a role for seed companies in improving agricultural practices and capacity-building for farmers. Providing transparency on what seed companies can do and are doing in this field will help to define the role of seed companies and to create realistic expectations.

Rightly you state that due to the structure of the seed industry, reliable sources of information on individual companies and the industry at large are difficult to find. This lack of information is in itself surprising for an industry that plays such a vital role in global food security. It is also risky. Lack of informed opinion in the public domain gives scope for activist stakeholders to create unbalanced perceptions. This affects public actors in getting the necessary policy and regulatory frameworks in place for the private sector to play its role. The risks of these perceptions that you describe are considered very correctly – though not as a future risk caused by the Index, but as the actual problem impeding the sector. The transparency created by the Access to Seeds Index as an independent platform is an opportunity for the industry. As one stakeholder put it: 'It would be very valuable if the Access to Seeds Index can help in removing suspicion among government officials in emerging markets.' The learning platforms and enhanced discussions you describe in your letter will be facilitated by the transparency provided by the Index.

This lack of publicly-available information does not need to be a disadvantage for the Index. The most important source of information for the Index is companies themselves. Companies are asked to provide the data, based on a questionnaire. A company selected for the Index that chooses not to provide the information will still be ranked. In that case the position is based on publicly-available information.

The Access to Seeds Index consists of several 'technical areas' considering different business activities. Definition of the exact areas and indicators is currently under development based on the input from the dialogs. The first area (general management) will focus on the role and responsibility seed companies define for themselves in global issues like food security and sustainable intensification. Any commitments by companies on these themes, including in well-developed agricultural systems, can be appreciated by the Index at this level. Other areas will focus more on how companies work on helping smallholder farmers to benefit from their knowledge, technologies, varieties and seeds. When a company has no commitments in this area, the Index will show that this company is less relevant in this respect, but it still shows a company can have commitments to global food security in other fields.

Our consultations with farmers indicated very clearly that they wish to be viewed as entrepreneurs – entrepreneurs who like the ability to choose the inputs they prefer and are willing to adopt new technologies that can improve their business. This is also the view from which the Index starts. It is therefore interested to learn from seed companies whether they succeed in building inclusive sustainable business models that reach those farmers. Promoting seed donations or viewing smallholder farmers as objects of charity is, in principle, not within the scope of the Access to Seeds Index.

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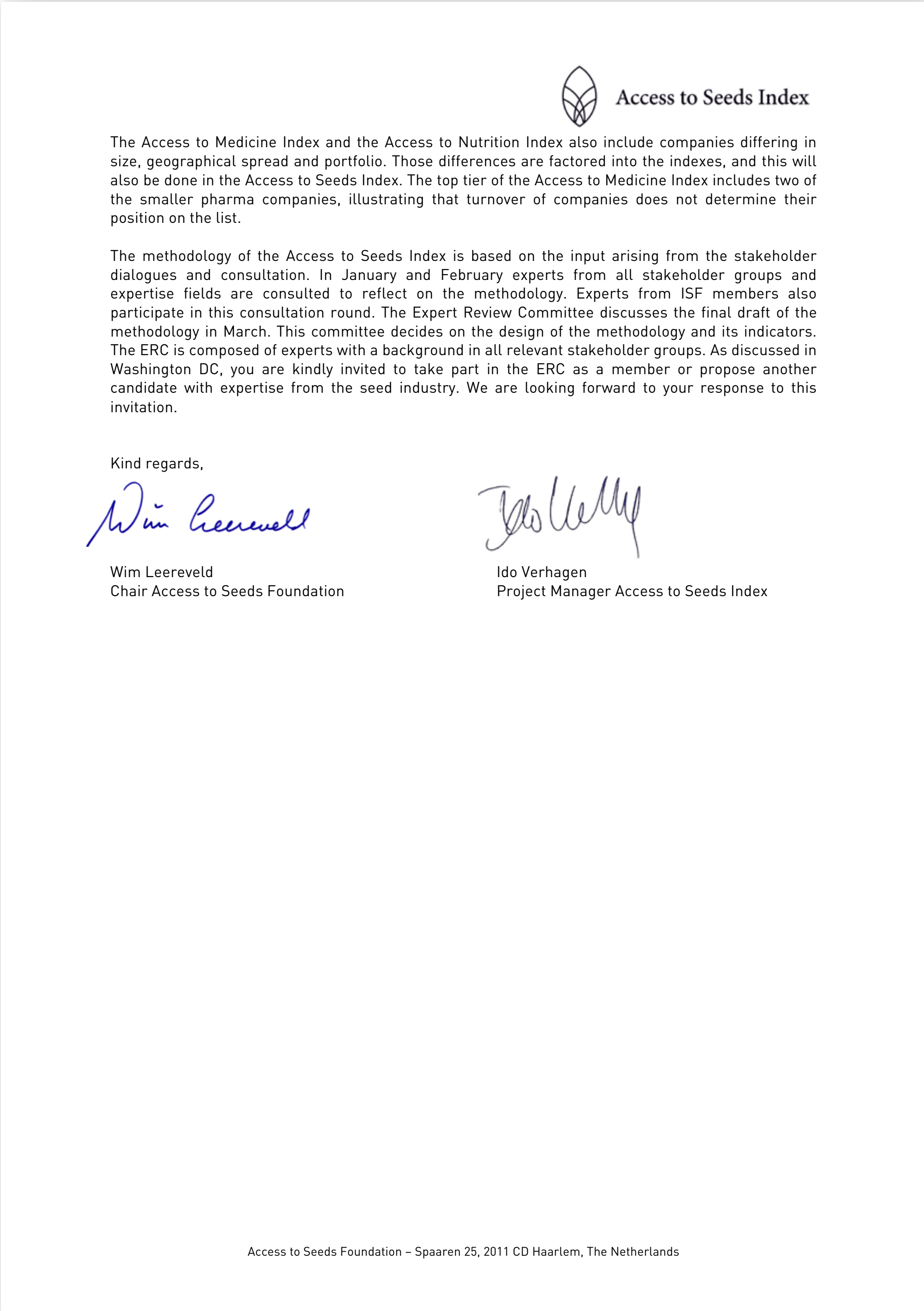

Access to Seeds Index

The Access to Medicine Index and the Access to Nutrition Index also include companies differing in size, geographical spread and portfolio. Those differences are factored into the indexes, and this will also be done in the Access to Seeds Index. The top tier of the Access to Medicine Index includes two of the smaller pharma companies, illustrating that turnover of companies does not determine their position on the list.

The methodology of the Access to Seeds Index is based on the input arising from the stakeholder dialogues and consultation. In January and February experts from all stakeholder groups and expertise fields are consulted to reflect on the methodology. Experts from ISF members also participate in this consultation round. The Expert Review Committee discusses the final draft of the methodology in March. This committee decides on the design of the methodology and its indicators. The ERC is composed of experts with a background in all relevant stakeholder groups. As discussed in Washington DC, you are kindly invited to take part in the ERC as a member or propose another candidate with expertise from the seed industry. We are looking forward to your response to this invitation.

Kind regards,

Wim Leereveld
Chair Access to Seeds Foundation

Ido Verhagen
Project Manager Access to Seeds Index

Access to Seeds Foundation – Spaaren 25, 2011 CD Haarlem, The Netherlands

APPENDIX V
OBSERVATIONS BY AN INDUSTRY REPRESENTATIVE

One of the industry representatives provided extensive and detailed feedback. With permission, the full letter is published below.

Response of KWS to the draft Access to Seeds Index Report of the Industry Round Table held at Washington, 23 October 2013

KWS

By Bettina Haussmann (representative of KWS), 29 November 2013 (Mail:Bettina.Haussmann@kws.com)

Dear Access to Seeds Index Team,

Thank you for giving us the opportunity to comment on the draft version of the Access to Seeds Index Report of the Industry Round Table held at Washington, 23 October 2013. I am listing here some general comments, followed by a list of concrete changes to be made in the draft report so that it better reflects the facts of the meeting. These changes are also directly integrated as comments in the attached pdf version of the draft report.

The draft report reads as if the seed industry representatives generally supported the idea of the Access to Seeds Index (here abbreviated ASI) – but in fact, industry participants were highly critical about it, underlined the inappropriateness of the index to reduce hunger in the world and the risks of such an index to do unwanted damage to both smallholder farmers and seed companies.

When inquiring about the state of the decision making regarding the ASI implementation in early stages of the meeting, participants were very negatively surprised by the "quick and dirty" response of the Dutch government representative that it had actually already been decided that the ASI will be financed and that the index will definitely come in 2014. This was a contradiction to the procedure indicated on the ASI web page. [The webpage indicates "*By the end of the year, we will make a formal decision about whether to develop the first actual index in 2014"* (http://accesstoseeds.org/exploration-process/)"]. The fact that this decision had been made already before the industry round table shows that the participatory process described on the ASI web page is actually not correctly implemented, and leads to the whole process losing credibility for the seed industry. No room was given at the meeting to discuss this further.

Industry representatives underlined that access to improved seed alone is absolutely insufficient to enhance productivity and food security of smallholder farmers; a much more holistic approach is needed. The countries' enabling environment for sustainable agricultural intensification (including political stability and appropriate legal framework) is much more important for reducing poverty - and is a prerequisite also for the required substantial long-term investments in the seed sector (including on-site breeding, seed production and commercialization). So there is need for a country rating first, not a seed company rating. A rating of seed companies will actually deviate from the real problems associated with smallholders' food security; the ASI is therefore expected to be counterproductive in reaching its envisaged goals.

Furthermore, the seed industry is much smaller than the pharmaceutical industry, and also has a much more regional footprint. Medicine will work in any country whereas seed will not. The model of pharmaceutical industry is therefore irrelevant, and an ASI built on that model bears the risk to create false incentives that can actually damage smallholder farmers. It remained unclear in the meeting, how the local specificity of seed and seed companies will be taken into account by the index.

Industry representatives underlined several times that there are more economic and efficient ways within existing networks to develop business models that work for smallholder farmers. A ranking appeared particularly unsuitable, and could be used negatively by activist NGO's against seed companies. But no room was given to look more closely at more viable alternatives to an ASI.

Costs and resources required to implement any meaningful ASI (if existent at all) are expected to be extremely high both for the ASI Foundation and for the seed companies. These resources could be

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invested much more directly in actual seed activities with smallholder farmers. Again, the ASI appears to be counterproductive in this regard.

Industry representatives were also worried about the fact that there is insufficient knowledge in the ASI team (i) about local smallholder farmer's variety needs and the complexity of smallholder farmer's seed systems and livelihoods in general, and (ii) about the actual characteristics of the seed industry. It does not make sense to the industry representatives that "independency of the ASI team" is rated higher than competency and sound knowledge and insight into both seed industry and smallholder farming systems.

There is also severe doubt that an ASI can be developed that is independent of the turnover of the companies, especially in the seed sector where extremely large differences in turn over exist among the top 16 companies. How will the index take into account size, scale and individual strategies of the seed companies?

I left the meeting with great concerns about the fact that it remained unclear *how* the actual index methodology and indicators will be elaborated by the "independent Expert Review Committee", whether the trade-offs of various indicators/ methods will be thoroughly examined in a *scientific* and "fair" manner (simulation studies?), from the perspective of seed companies, and from the perspective of smallholder farmers. How will the index take into account sustainability and the ultimate impacts of any intervention in the seed sector on farmers' livelihoods? The ASI team acknowledged the various challenges and risks related to ASI, but the team did *not* provide any clear answers on *how* these challenges will be addressed.

Another major concern is that the expert review committee members did not participate in the consultancy meetings; they will be informed only via the ASI team whose report will be obviously biased due to a conflict of interest.

I would like to suggest to integrate these and other concerns into the report, and to add a summary of these concerns at the end of the report (new chapter: 5. Observations by the industry representatives). Please see the concrete suggestions listed below; they are also integrated as comments in the attached pdf file of your draft report.

I sincerely hope that the ASI team will consider the suggested changes, and consequently refrain from implementing the Access to Seeds Index.

With kind regards,

Bettina Haußmann

Bettina Haussmann
KWS SAAT AG

Annex: Specific suggestions as list attached and incorporated as comments in the separate PDF file of Draft report.

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ANNEX TO THE RESPONSE OF KWS

Observations by an industry representative

While this report reads as if the seed industry representatives generally supported the idea of the Access to Seeds Index (ASI), industry participants were in fact highly critical about it, underlined the inappropriateness of the index to reduce hunger in the world and the risks of such an index to do unwanted damage to both smallholder farmers and seed companies.

The fact that the decision to go for the index in 2014 had been made already before the industry round table shows that the participatory process described on the ASI web page was actually not correctly implemented, and leads to the whole process losing credibility for the seed industry.

Industry representatives are convinced that access to improved seed alone is absolutely insufficient to enhance productivity and food security of smallholder farmers; the countries' enabling environment for sustainable agricultural intensification (including legal framework) is much more important for reducing poverty - and also for investments in the seed sector. So there is need for a country rating first, not a company rating. A rating of seed companies will actually deviate from the real problems associated with smallholders' food security, and is therefore counterproductive. Furthermore, the seed industry is much smaller than the pharmaceutical industry, and also has a much more regional footprint. Medicine will work in any country whereas seed will not. The model of pharmaceutical industry is therefore irrelevant.

Industry representatives underlined that there are more economic and efficient ways within existing networks to develop business models that work for smallholder farmers. The costs and resources involved for developing the ASI (both for the ASI Foundation and for the seed companies) could be used much more directly in actual seed activities with smallholder farmers.

Industry representatives remained very worried about the fact that there is insufficient knowledge in the ASI team (i) about local smallholder farmer's variety needs and the complexity of smallholder farmer's seed systems, and (ii) about the actual characteristics of the seed industry. Independency of the ASI team should not be rated higher than competency.

It remained unclear *how* the actual index methodology and indicators will be elaborated by the "Independent Expert Review Committee", whether the trade-offs of various indicators/ methods will be thoroughly examined in a *scientific* and "fair" manner (simulation studies?), from the perspective of seed companies, and from the perspective of smallholder farmers. The ASI team acknowledged the various challenges and risks related to ASI, but the team did *not* provide clear answers on *how* these challenges will be addressed. Another major concern is that the expert review committee members did not participate in the consultation meetings; they will be informed only via the ASI team whose report will be obviously biased due to a conflict of interest.

The industry representatives therefore encourage the ASI team to refrain from implementing the Index.

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Design
Explanation Design BV, Netherlands

[redacted]

Access to Seeds Index

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