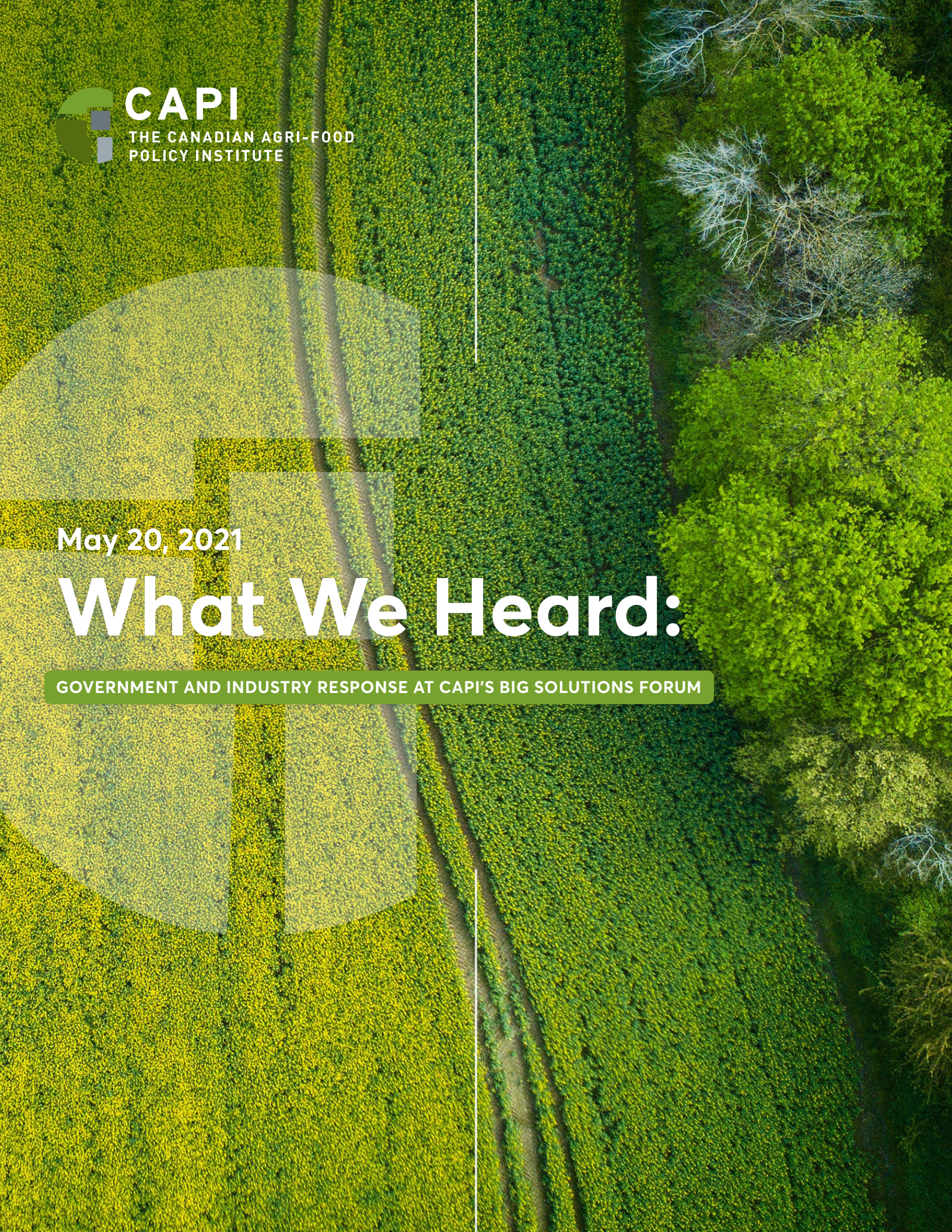

CAPI
THE CANADIAN AGRI-FOOD POLICY INSTITUTE

May 20, 2021

What We Heard:

GOVERNMENT AND INDUSTRY RESPONSE AT CAPI'S BIG SOLUTIONS FORUM

CAPI's **Big Solutions Forum (BSF)**, held May 20, 2021, was the culmination of a year and a half long program of research and dialogue that strived to understand better how to Create Prosperity from Chaos in the face of climate change, the pandemic, agri-food supply chain vulnerabilities, an increasingly unruly and protectionist trading environment and the need to sustainably feed the world and Canadians while preserving our natural capital and adding value.

Overall, CAPI concluded that the Canadian agri-food system is competitive economically and environmentally (low GHG intensive) and proved to be surprisingly resilient during the pandemic. However future resilience and sustainable growth will require the agri-food system (AFS) to accelerate productivity gains, improve environmental outcomes and provide solutions to climate change **(sustainable intensification)**; take a **"One-Health"** approach to strategy, policies, innovation and regulation; work with like-minded countries to ensure global sustainability and food security by repairing **rules-based trade;** and boost **value-added** output to reduce trade risk, increase resilience and ensure domestic food security. This is a tall order that will require new approaches and bold actions, including more:

- Strategic Thinking
- A Systems Approach
- Public-Private Partnerships
- Aspirational Leadership

> The BSF on May 20 provided the opportunity to hear the perspectives of five Deputy Ministers and five industry leaders on the future of Canada's agri-food system in light of these findings, published in CAPI's Synthesis Report from the May 11 and 12 Pre-dialogue with Trusted Opinion Leaders.

What We Heard from the Deputies

CAPI is on the right track with its frame and conclusions

- Deputy Minister Chris Forbes (AAFC) argued CAPI's frame makes a lot of sense - the world needs more food and there will be growing challenges from climate change and an impact on food production from a growing world population.
- DM Forbes agreed that to have a digital, more inclusive, green and resilient economy, demands a new way of working together and an ability to be cross sectoral, flexible and move across disciplines.
- However, DM Forbes disagreed with CAPI that there is lack of public-private collaboration.
- CAPI's conclusions resonated with Deputy Minister Simon Kennedy (ISED) since it points to the importance of cross-sectoral work, adoption of technologies, and dealing with environmental issues.
- Deputy Minister Christine Hogan (ECCC) appreciated CAPI's focus on the four key actions which are useful for framing our discussion.
- Associate Deputy Minister Harpreet Kochhar (Health Canada) agreed that the pandemic threatened supply chain resilience and forced them to adopt new ways of operating.
- Associate DM Kochhar also agreed our global systems are bearing the burden of the transmission of viruses from animals to humans, which requires a One Health approach.
- Deputy Minister John Hannaford (GAC) liked CAPI's suggestion that Canada should take advantage of its low GHG intensity as a branding opportunity particularly as we move into new markets and present the advantages of Canada in those markets.

Canada has a good story to tell but we can always do better and need to leverage our strengths abroad

- DM Forbes argued Canada is well positioned to provide food for the growing world population as long as we take care of business at home.
- DM Kennedy said Canada's special assets (e.g. an abundance of land and natural capital) give us a huge advantage globally.
- However, the pressures and issues facing the agriculture and agri-food sector, especially related to competitiveness and long-term prosperity are no different than other sectors and are a serious existential issue.

We need to continue to improve our Environmental performance

- Making sure our agriculture and food systems are contributing to our overall environmental sustainability will be a critical challenge.
- Green was a big imperative before the pandemic but became even more important during, with partners like the U.S. and the EU taking seriously the systemic risks from Climate Change.
- Decarbonization is not just about cars, oil and gas but about the huge potential in the agriculture sector in sequestering carbon and reducing emissions.
- The Government of Canada's Climate Plan, building on the Pan Canadian Framework on Climate Change, has put resources into more than 100 initiatives, driven by science and with a sector focus, including three thematic areas relevant for agriculture and food.
- Important for agriculture is the intersection between biodiversity and climate change.

Value will come from the ability to be more efficient, move faster and be better than the competition

- Innovation and adoption of new technologies and practices have been the foundation for past successes and will be essential in the future
- As an example, we saw a huge uptake of digitization of businesses in the past 18 months, driven by existential threats from the pandemic shutdowns.
- In the future, what a business is producing will not be the source of competitive advantage, but rather how the business operates and its ability to use information better than the next guy.
- Competitiveness will come from efficiency, from an ability to exploit machine learning, logistics, artificial intelligence and Big Data.

The pandemic inspired cooperation and working together to find solutions to very complex problems

- Associate DM Kochhar pointed out that the pandemic led to challenges for food security, demand for food and existing regulatory regimes, driving changes in agri-food sector resilience.
- DM Kennedy argued the pandemic put a redline under the urgency of dealing with supply chain resilience.
- DM Hannaford suggested that while agriculture and food trade did well during the pandemic, it brought out supply chain vulnerabilities and protectionism.
- In response, industry and government came together to find solutions. Examples include how Health Canada put together interim orders to prevent disruption of clinical trials, certain foods and medical devices being imported into Canada to prevent shortages, e.g. infant formula and PPEs.
- The agri-food sector also came together despite logistical challenges to deliver safe and nutritious foods amid international restrictions.
- Existing regulatory systems were challenged by the pandemic and made clear that we need to continue to modernize our regulatory systems for innovation to encourage growth in the agri-food sector. But it is essential our regulations are clear, transparent and predictable.
- Given the disproportionate impact of the pandemic on less privileged groups in society, inclusiveness became a bigger issue for government and society.

Rules-based trade will continue to be essential and will serve Canada well

- DM Hannaford argued we need to focus on the vulnerability of supply chains and how trade rules affect them. This may be possible at an upcoming WTO ministerial in the fall.
- We need to build on our existing Free Trade Agreements, including CPTPP and pursue a policy of trade diversification and deepening our relationships in SE Asia.
- While rules matter, we need people on the ground actively promoting our trade interests and deepening our ties, a role played by the trade commissioner service, which is celebrating 125 years.

A One Health approach is key to address future pandemics

- Associate DM Kochhar argued that the interaction between human health and environmental and animal health is becoming increasingly relevant and has taught us how priorities can change rapidly.
- Hence a One Health approach is important across government and disciplines.
- In the international arena, there is a Canadian stamp on our collaborations and partnerships in this area.

Government has a strong foundation of collaboration across government and industry, but there is still a tendency to work in silos

- DM Forbes argued that while government shouldn't rest on its laurels, it does a pretty good job with the private sector. Examples include the 5-year Agricultural Policy Framework at the Federal-Provincial-Territorial (FPT) level involving a level of coordination not seen elsewhere across the government.
- Another example is the trade commissioners' service where government works with businesses to ensure it is representing companies abroad.
- DM Kennedy (ISED) recognizes more needs to be done with AAFC and others to look beyond the traditional sectors it looks at.
- DM Hogan (ECCC) reported that ECCC is increasingly working with AAFC on nature-based climate solutions and engaging the provinces and indigenous communities.

Cross disciplinary work is how you get an advantage and solve problems

- The superclusters are an excellent example as well as Excelera, an Artificial Intelligence company masquerading as a biotechnology company.
- Associate DM Kochhar noted that we do continue to take a siloed approach when it comes to investing in science, rather than collaborating across industry.
- Foresighting by Health Canada is helping ensure cross- disciplinary voices are involved in supporting a one-health approach to regulations.
- Antimicrobial resistance is an example where Health Canada has been successfully collaborating across disciplines.

What We Heard from Industry

CAPI is on the right track but there is more that can be done

- Gaetan Desroches, CEO of Sollio Groupe Coopératif, agreed with CAPI about the importance of sustainability and value added. Both elements are being achieved thanks to technology.
- Desroches also agreed with the importance of rules-based trade that are clear and transparent.
- Sollio sees the role of public-private partnership, partnering with government and with start-ups to make agriculture more productive and environmentally friendly.
- However, he argued that industry faces labour issues and needs support for technology transfer and adoption.
- Katelyn Duncan, a young farmer and Farm Management Consultant at Backswath Management Inc., appreciated CAPI's approach that has triggered an ambitious dialogue for big solutions. But with big solutions come big changes.
- Referring to Professor Christopher Barrett's "true truths", Duncan argued the challenge comes with finding solutions for the impact of agriculture on the environment. The next generation of producers is concerned about the social and environmental aspects of sustainability ("intangibles") and this requires talking to consumers and our first nation leaders.
- Duncan argued that we need to find solutions to provide sustainable nutrient dense food for Canadians, which would address the food security and climate change nexus.

There are many aspects of collaboration and systems thinking permeating the CAPI report

- Bettina Hamelin, President and CEO of Ontario Genomics pointed out that when looking at solutions for climate change and the pandemic, there is very little we can do alone- we need to collaborate across the system and sectors because there are so many interconnections.
- Ontario Genomics is a platform that brings together the conversion of genomics, big data, Artificial Intelligence (AI) and machine learning, while applying engineering principals and can be applied to different industries.
- Bill Greuel, CEO of Protein Industries Canada (PIC) suggested that there is a common theme running through all the Deputy Ministers' comments and throughout the CAPI report about the importance of interconnectedness and systems thinking. PIC is a live example with their work trying to reach across the value chains and changing behaviours and doing things differently in Canada.
- It is also about collaboration since the opportunities and challenges of today can't be solved by one entity- collaboration is so important. It takes trust among members in the ecosystem and "co-ompetition".
- Chris Terris, VP of Global Strategy at TELUS Agriculture agreed with this "co-ompetition" model since alone, we cannot find solutions, but by working together in an ecosystem for the future viability of the sector.
- Terris said we need to take a systems approach in proving the value to the producer by connecting the producer to food and then to consumers.

One Health is not so elusive as we might think but requires systems thinking

- Bettina Hamelin said that Ontario Genomics is all about health, combining biotechnology and academics. Science can help solve one-health issues and food plays such an important role.
- In science, the lines between sectors are blurring more which requires systems thinking and collaboration.
- Katelyn Duncan said that for agriculture, you can see the synergy between health and agriculture with animals and supports a One Health approach.

There are opportunities for value added from these new technologies and partnerships

- Bettina Hamelin described how genomics has revolutionized agriculture and has led to a new era in this industry, where we see applications in all kinds of areas from synthetic biology to engineering. Excelera is an example.
- An increasing amount of investments are being made in this area (e.g. $6 billion in the past 18 months by the Canadian Pension Plan Investment Board).
- We should be bold in integrating new technologies, since they are being developed at a very fast pace and can offer solutions. Biomass as an example, using new technologies can be used as inputs to create very different products, e.g. leather developed using cellular technology.
- This is where collaboration and strategic thinking are so important because they require working together with other non-traditional areas of the supply chain.
- A systems approach is also required to drive towards what consumers want.
- Gaetan Desroches of Sollio commented that his company partners with governments and start-ups to make agriculture more productive and environmentally friendly.
- He also confirmed that socio-economic bundling, as introduced by Professor Christopher Barrett, is needed for technology transfer, that can lead to new technologies being brought into the hands of people to advance sustainability and value added as new revenue streams.

Digitization and new technologies can help industry deliver sustainability and value added to consumers, to boost revenue streams and to improve competitiveness

- Chris Terris of Telus emphasized that there is a real opportunity in agriculture and food to make use of digitization, but it is still the early days with only 50% of producers using this technology.
- Block chain technology helps industry deliver products consumers want, capitalizing on the data. It allows businesses to stay competitive.
- Sustainability claims, which are growing by 5-6 times annually in the Consumer Packaged Goods (CPG) industry, require these technologies since they build trust in the data providence associated with the product coming from the producer.
- The producer will not adopt this new technology without a clear economic outcome, which comes from understanding what the consumer values and what they are willing to pay.
- This requires linking the dataset from each vertical with the outcomes and creating a data ecosystem to play in. It also requires a systems approach which can transmit value back to producers.

Fragmentation in the private sector requires more public private partnerships (PPP) and collaboration

- Bettina Hamelin argued that in genomics, there is market pull/demand for sustainable products and the technology, but the right people need to be brought together to create a circular economy.
- Bill Greuel argued there are well over 400 industry associations in the food-agriculture space in Canada and it is hard to get a common voice on many issues. More cohesion would help solve some of the issues.
- Working with government is also important when some issues are too big to solve for the private sector and need greater horsepower. As an example, collective action is necessary before many producers will adopt precision technologies – including investment in satellites and 5G infrastructure.
- Bettina Hamelin described how there was a time when pharmaceuticals were a very competitive marketplace. When they lost their protection and the pipelines went dry, they bought into PPP. But do we need a crisis to drive people together?
- PPP work when people are willing to come together and listen to each other for a common goal and look beyond their bottom line. Something bigger is often at stake which we want to solve and some give and take is necessary. There are lots of examples where it works and more should be done in the agriculture and food space.