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New Year's message from IMS President Guillaume Roué

Dear friends and colleagues from all over the world,

Happy New Year 2023!

It is my great honor to address you again as IMS President.

We are living in uncertain times, particularly related to conflict and the consequences on prices, trading conditions, and ultimately our daily lives. Price inflation is climbing in many countries, with the potential for economic slowdown or even recession on the horizon. These conditions are particularly challenging for the meat industry.

The COVID-19 crisis continues to affect our activities, fortunately with less impact as we are now able to host in-person meetings. Therefore it gives me great pleasure to invite you to the 2023 IMS World Meat Congress, hosted by the Dutch Meat Industry Association (COV) in the Netherlands, from 10-12 October 2023 at the Maastricht Exhibition and Convention Centre, link to IMS event page.

I would like to acknowledge the excellent contributions from IMS Committees. Finally, after two years of virtual meetings (due to COVID-19), IMS Economics, Animal Care, Sustainable Meat, and Human Nutrition and Health Committees were able to meet in person at IMS HQ in October 2022.

IMS has a longstanding tradition of being "at the



discussion table" for the many challenges which the global meat industry needs to address. Our committees are wonderful opportunities to exchange ideas on how to address the challenges facing the livestock sector. IMS committees have established a regular program of collaboration, in many cases over several decades, with international organizations (examples in the next article, IMS Committee Meetings).

The list of challenges confronting the livestock sector is long, but permit me to take a high level view of how we are part of the solution for:

- Global food security and health: Livestock is critical to human health and global food and nutritional security. We are managing disease threats at the animal-human-environment interface through the development and implementation of animal-disease and food-safety programs.
- Equity and growth: Livestock is essential to our livelihoods, and in particular (according to the United Nations Food and Agriculture Organization, FAO) for an estimated one billion poor people. We need to support continued growth in value chains, with access to all necessary resources and services. Especially for the poor, this means being able to secure livelihoods and participate in growing markets or take up other opportunities outside the sector.
- Resources and climate: Livestock production based mainly on materials not competing with direct use as human food, and incentives and rewards for environmental stewardship will allow the sector to transition to existing and new resource use efficient ways of production and a greater contribution to climate change adaptation and mitigation.

I want to underline that most importantly, we contribute to affordable, high quality nutrition. This is too often forgotten in the middle of all the criticism directed at the livestock sector. In the real world, producers and consumers need to find the

right balance between decent livelihoods, affordability, and sustainably feeding the world.

Finally, let me conclude that our activities in the livestock sector, together with colleagues in non-animal (plant) agriculture will drive the transformation to sustainable food systems. It is not a question of one or the other, but rather better working together. We can be proud of our achievements so far, but of course much more needs to be done collectively.

The year 2022 was marked by conflict (and sadly also the development of potential new conflict) around the world. As we look forward with optimism for 2023, my most cherished wish is for peace.

I wish everyone a Happy, Peaceful, Prosperous, and Healthy New Year 2023!

Guillaume Roué
President, IMS

IMS Animal Care and Sustainable Meat Committees, 20-21 October 2022

After two years of virtual meetings due to the restrictions imposed by the Covid19 pandemic, the Committees brought together very good participation to address topical concerns facing the industry, in particular issues related to the development of meat substitutes.

Animal Care Committee

Chaired by **Phil Hadley** (AHDB, UK), the Committee was updated on Codex Alimentarius guidelines covering safety, quality, and fairness in international trade. The cornerstone of Codex success is the scientific basis that underlies all its standards, and its adherence to the agreed 8-step Codex decision process. These have been applied successfully for thousands of standards over almost 60 years of Codex.

Health for Animals (the global animal health association https://www.healthforanimals.org/) has organized a position statement to Codex (as a Conference Room Document, CRD) to "support advancement of all standards that meet the scientific and procedural requirements for advancement". This document was cosigned by the vast majority of international livestock sector organizations, including IMS.

Louison Camus (Interbev, France) briefed the Committee about legal developments in the labelling terminology for animal source foods in France and the EU. France wanted the EU to adopt labelling of meat substitutes in a similar way that milk substitutes cannot be termed "milk" to avoid confusion by customers. A legal protection of denominations of meat products has existed in France since 2020, but it will not apply until an implementation decree is in force. Interbev is working with the government to draft such a decree.

In the EU protection of denominations of meat products is currently being reformed and the European Commission intends to add the origin of meat ingredients in processed products. However, in the European Parliament, strong anti-meat pressure from NGOs contributed to it rejecting labelling regulations that protect meat. In the US, a voluntary approach to labelling is preferred while in the UK meat producers can take legal action against the spurious claims of NGOs regarding their criticism of the attributes of meat and substitutes. This issue is, however, complex because there is no agreed definition of "meat".

Developments in the FAO Global Agenda for Sustainable Livestock (GASL) were introduced by **Emmanuelle Coste** (Interbev, France). In October 2022 GASL announced the Dublin Communiqué following its meeting on *Livestock sector actions towards more sustainable food systems - a global agenda for sustainable livestock*. This included the aim of stakeholders working collaboratively in partnership with GASL to achieve common food system goals in the recently established Sub-Committee on Livestock of the FAO Committee on Agriculture. It was noted that the Bill Gates Foundation has gifted $1.5 million to GASL, focusing on sustainability in developing countries.

A regular and welcome participant in IMS meetings, **Leopoldo Stuardo** (WOAH, formerly OIE) updated the committee on the four "pillars" of the *2017 Strategy* on animal welfare. The chapter on animal welfare standards of the Terrestrial Code is currently underway, while the Animal Welfare Forum has provided a platform on the complex interactions in achieving the UN Sustainable Development Goals among different types of animal species. He stressed that achieving some of the UN Sustainable Development

Goals can contribute to animal welfare. WOAH has also partnered with the University of Liverpool to promote the development of knowledge in animal health economics with the goal of helping animal health services to have the greatest impact on people's lives and national economies.

In 2021 WOAH and its partners secured more than $7 million to roll-out the Global Burden of Animal Diseases programme, to understand both the direct and indirect costs of animal diseases in order to improve not only animal health and welfare but also human well-being, particularly in rural, agriculture-based communities. The burden includes effects on livestock populations and agriculture, costs of mitigation efforts and trade impacts.

In September, OECD published a report on meat protein alternatives (Frezal, C., C. Nenert and H. Gay, *Meat protein alternatives: opportunities and challenges for food systems' transformation* https://doi.org/10.1787/387d30cf-en, which lead author **Clara Frezal** introduced. Meat alternatives are attracting private investment and interest from the research community as possible solutions to meet the growing global demand for proteins in a sustainable, ethical, and healthy way.

The report investigates the opportunities and challenges associated with three meat alternatives: plant-based, insects and cultured meat. The analysis was based primarily on a literature review, complemented by an illustrative scenario using the OECD-FAO Aglink-Cosimo model. Results from the scenario analysis suggest that a shift from meat to protein alternatives in high and upper middle-income countries (where the largest potential growth of demand is located) could result in:

- a decline in feed demand and thus global agricultural land use of between 1.8-7.8 Mha, with the assumption that land freed up is converted into forests;
- a decrease in GHG emissions from the agriculture, forestry, and other land use sectors of up to 5 per cent on the basis of life cycle analysis;
- a decrease in international prices for meats of around 7-28 per cent, as well as for soybeans and cereals, which would benefit consumers overall but put pressure on farm incomes.

According to the meat substitute industry, the projected market growth by 2030 for plant-based protein could reach $25-140 billion, which is roughly equivalent to 10% of the global meat market, while insect-based could account for $8 billion and cultured meat for $5-25 billion. Currently, production costs are higher for meat substitutes than for animal sourced foods. This is due to a combination of factors depending on the substitute but include high R&D, small production scale, and high energy prices. For the most innovative substitute, cultured meat, cost estimates vary by several orders of magnitude depending on assumptions made on the production technology but are currently at least 100 times higher than for meats.

Apart from price, questions remain as to consumer (and regulatory) acceptance of these alternative protein sources, ranging from taste, cultural concerns, and nutritional quality, as well as environmental impacts especially due to high energy dependence for cultured meat. The Committee noted the need to account for carbon storage in pasture-based ruminant systems and the recognition of the wide range of livestock production systems.

While the Committee welcomed the opportunity provided by the OECD report to examine the potential for meat substitutes, it expressed some scepticism as to the robustness of the cost data, market prospects, assumptions used in the modelling exercise, and risks of making general conclusions across the wide diversity of systems. More evidence-based research is needed!

Joint Sustainable Meat, Human Nutrition and Health Committees

Recognizing the close links between sustainability, nutrition and health related to meat and livestock, the two committees met in joint session under their respective Chairs, **Juan José Grigera Naón** (IPCVA, Argentina) and **Puk Maia Ingemann Holm** (Danish Agriculture and Food Council).

Philippe Cayot (Institut Agro Dijon, France) gave a presentation on *plant-based meat analogues, a real alternative?* starting from the observation that there has been a decrease in both red and white meat consumption per capita in developed countries over time, matched by an increase in alternative protein sourced foods. Based on "5 P" analysis (Product, People, Price, Place, and Promotion) Professor Cayot gave a comprehensive account of the nutritional and marketing characteristics of meat and meat substitute foods.

Comparisons are complex between these different sources and involve, in particular, price per unit of protein (and quality of protein), degree of processing and additives, meal preparation time, digestibility, long-term health (muscle mass of different age and gender cohorts, iron and vitamin B12 availability) and environmental effects, including energy use. Highlights of scientific research show that, for example, once

muscle mass is lost it cannot be restored after 50 years of age; that only 1% of iron is absorbed through vegetarian diets (iron deficiency is a global problem) compared with 7% by omnivores; 68% of long-life vegetarians in India are deficient in vitamin B12 (and suffer from amenia and iron deficiency).

Although there is some (weak) evidence of causation between red meat and some cancers one of the factors often overlooked is that this might be less the result of red meat per se and more the effect of methods of how it is cooked. An interesting observation was that while offal food is highly nutritious as a source of protein and minerals, it is mostly favoured by older people.

Zani Veldsman (Nutrition Scientist, South Africa) discussed the issue of *Front of Pack Labelling - facts, figures, and future directions*. Food legislation has become more pervasive, and a key element is the labelling of foods. This is variously intended to better inform consumers to make healthier food choices; encourage the food industry to reformulate products towards healthier options; and help consumers make food choices that can reduce diet-related chronic diseases.

However, this is fraught with difficulties: there are different nutritional symbols used across countries (colour codes, star ratings); health risks (salt, sugar content…) or benefits (low fat, or sugar…) and environmental benefits (carbon footprints, sustainability…) are not consistently measured and not always supported by scientific evidence; while expressing complex impacts with simple labels that ignore the trade-offs involved, including affordability, can be misleading. The growing importance of meat substitutes means that their health, sustainability, and greenhouse gas emission claims need to be carefully scrutinised.

The multi-stakeholder **Livestock Environmental Assessment and Performance Partnership** (LEAP) is tasked with accelerating the sustainable development of livestock systems and is one of FAO's success stories in terms of building on science to assess the environmental performance of livestock and develop technical guidance to support the implementation of livestock-related policies at the global level. IMS Secretary General **Hsin Huang** (Chair of LEAP Steering Committee) and **Aimable Uwizeye** (LEAP Secretariat) updated the Committee on developments.

A significant amount of technical work and projects are underway, including a public review of its work on methods and data to measure methane emissions. While using life cycle analysis (LCA) is often considered the "gold standard" to measure emissions throughout the food supply chain, it is fraught with value judgements on decisions, for example, on allocating emissions to animals and their by-products, as well as data limitations and cross-country comparisons. A promising approach would be to identify hotspots requiring actions, rather than across the board inventories.

Professor Alice Stanton (University of Medicine and Health Sciences, Dublin, Ireland) gave a powerful and persuasive presentation on the *Nutritional Benefits of Animal-Source Foods* grounded in scientific evidence to counter the misleading and misinformed claims of ASF critics. She pointed out that it is not enough to focus on calorie intake, but on the quality of protein in foods consumed, in particular because the latter is correlated with children's physical and mental development. Moreover, eating too little animal-source foods is not optimal for living long lives.

Focusing on the EAT-Lancet Commission studies, which recommend a halving of eating meat and dairy products, she stressed that the evidence showed that it is *not* by reducing red meat consumption that would lead to fewer non-communicable deaths, but by reducing overall intake of calories and salt, and increasing the consumption of fruit, vegetables, and nuts. Moreover, when eaten as part of a balanced diet, red meat provides considerable protection against nutritional deficiencies. While relatively small harmful health effects are possibly related to the consumption of more than 500g of red meat weekly, the majority of the world's population do not fall into this category and in fact are not eating enough dairy or omega-3 rich foods.

Replacing animal sourced foods with plant-based ultra-processed foods, often argued to reduce greenhouse gas emissions, is very likely to harm human health because they lack essential micronutrients and the protections against nutritional deficiencies from ASF. The global across-the-board recommendations also ignore the fact that developing countries need more ASF to tackle nutritional deficiencies.

One of the most disturbing experiences recounted by Professor Stanton was the resistance and delays in publishing a critique of the EAT-Lancet Commission reports in the *Lancet* (see also IMS Newsletter No. 629, August 2021), the uncritical publicity given to the reports in the media, and the uptake of the Commission's recommendations in health and nutrition policy in several countries. While some of the criticisms has been

accepted by authors of the EAT-Lancet Commission reports, this is far from adequate or comprehensive.

Paola Patruno (DSG, CLITRAVI) informed the Committees of the Dublin Declaration of Scientists at the *Summit on the Societal Role of Meat - What the Science Says* held on 19-20 October hosted by Teagasc, the Irish Agriculture and Food Development Authority. The Summit brought together scientists covering nutrition and health benefits, environmental sustainability, socio-cultural and economic values, as well as solutions for the many improvements need. The Declaration can be accessed at https://www.dublin-declaration.org/.

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The increasing and impressive body of research demonstrating the evidence-based net benefits of animal source foods for people and the planet have not, unfortunately in so many cases, been mainstreamed into the public and political discourse. This is an ongoing challenge requiring engagement with policy makers and regulatory authorities, the media, and academic institutions.

Despite the positive evidence for meat there is still room for improvements throughout the supply chain so that the industry can with even greater confidence declare meat and livestock as part of the solution, and not the problem!

Wilfrid Legg, IMS Consultant

The year ahead for U.S. meat

Like so much else, the success of the U.S. meat industry in 2023 will depend on the performance of the global economy as well as the American economy.

According to the new 2023 outlook report released by CoBank's Knowledge Exchange, the U.S. economy will continue to be driven by the momentum it built in 2022, with inflation gradually declining, unemployment at historic lows, and investment markets stable. However, the fact that inflation, even as it dips slightly, continues to remain stubbornly high is still a serious concern, and the historical fact that an inflation rate greater than five per cent has never been brought down without a recession will probably lead to weak growth in the new year.

"As financial conditions continue to tighten, we expect the U.S. economy will steadily soften through the first half of 2023, ushering in a brief, modest recession," stated Dan Kowalski, vice president of the Knowledge Exchange, as reported on *The Cattle Site*, an internet news source. "The unemployment rate could rise as high as five per cent, indirectly leading to a decline in consumer spending. Without this softening in the labor market and the associated slowing of wage gains and spending, it will be difficult to stabilize prices."

Beef's Plus Side – And Downside

On the plus side, though, "There's no question the pork and beef markets indicate consumers want more pork and beef," reported *Drovers Journal* in November, quoting Scott Brown, an agricultural economist at the University of Missouri, who said: "It's been a good ride on the demand side. Let's hope it continues as we look forward."

Brown added a note of caution, however: "Number one, with these higher interest rates, we talk about what it means for borrowing money for producers. But I worry about it choking off consumer spending on food products. And secondly, continued concerns about the general economy and what that means in 2023. If real [gross domestic product] contracts, as many are suggesting it will now, do we find ourselves where demand isn't as strong as we've been experiencing?"

With the three-years-and-counting COVID pandemic forcing a big increase in home-cooked meals, millions of Americans rediscovered the flavor and quality of USDA Choice and Prime beef, to the point that supply could become an issue in 2023. "It's going to get tougher and tougher to find quality beef, I think, going forward," Brown said, speaking on *AgriTalk*. In general, tighter supplies drive up prices, which in turn dampen consumer demand.

Moreover, in the western and Midwestern U.S., serious drought continues to have a big impact on livestock production. "I think in some places, you have producers who are deciding, 'Hey, I can grow corn and soybeans at these prices, maybe better than I can raise cattle,'" said Brown. Cattle numbers in feedyards already suggest the beef industry isn't building back the national herd. "I think a big change is coming to the structure, at least on the cow-calf side of the industry that's typically been made up of a lot of small producers. We may wake up a few years down

the road… and find it much more consolidated…"

U.S. Pork Demand Steady

On the pork side, the industry looks to remain profitable, according to economists, but there are still big challenges that could change the picture. Christine McCracken, who is the executive director for animal protein at Rabobank, cites the increasing costs of feed, fuel, and money as pressures on profitability. "With nominal growth in production and steady pork exports, hog markets are expected to trend only slightly below 2022 averages. Packer demand for hogs should remain steady yet could slow if retail pork sales disappoint or exports fall short of expectations," she told *Farm Journal's AgWeb*. "Any improvement in the health status of the herd or a return to trendline productivity would also limit the near-term upside in the cash market."

Overall, she said she's generally optimistic about U.S. pork. "We are generally optimistic on the U.S. pork market outlook as global protein supplies remain constrained, but it will be tough for producers to repeat the level of returns we have seen in the past few years. U.S. pork markets are likely to be under some pressure as consumers contend with the economic fallout of slowing growth and reduced purchasing power. Pork also faces more competition in the retail meat case from increased chicken supplies early in the year, which is likely to attract stronger promotional activity. We are more optimistic on the second half of 2023 as U.S. beef supplies will contract, leaving more room in the case for pork."

A New Farm Bill Looms

Besides economic and supply-side concerns for the meat industry, 2023 is supposed to be the year a new Farm Bill is prepared by Congress. But the mixed political picture given by the 2022 midterm election results has complicated matters. The current Farm Bill, which addresses everything from export support to water access to meat marketing boards (and nearly everything else in U.S. agriculture, from tapioca to timber), is set to sunset at the end of September, giving the 118th Congress, which takes office this month, just nine months to put together a new Bill.

According to the Knowledge Exchange, the Farm Bill wish-list differs significantly between the Republicans and Democrats – the Democratic Biden Administration has already made it clear that climate change needs to figure significantly in the new Bill. "Ultimately, the Senate will have the upper hand in this debate and the policies that arise in the bill will impact agriculture for the next decade to come," reports *The Cattle Site*.

The National Cattlemen's Beef Association has also already created its priorities for the 2023 Farm Bill, which include points that either directly or indirectly address climate change. The NCBA's priorities include:

- Protecting animal health through disease prevention programs.
- Strengthening risk management programs that provide producers with added protection against weather events and price decline.
- Promoting voluntary conservation programs that provide support for producers to implement sustainable practices outside of government mandates.
- Supporting disaster recovery programs that help producers return to normal operations following attacks by predators or extreme conditions like drought and wildfire.

At a Farm Bill hearing in December, U.S. Senator John Boozman, a Republican from Arkansas who is the ranking minority-party member of the U.S. Senate Committee on Agriculture, Nutrition, and Forestry, said: "As we begin drafting the new Farm Bill, our priorities must take into consideration what is happening on the international stage. The world has been teetering on the brink of a massive food crisis for some time now. The Russian conflict in Ukraine, two grain exporting countries whose products feed some of the most vulnerable people in the world, has added fuel to that fire."

Boozman added: "Innovation is the answer to the challenge of feeding our growing population, as well as giving our farmers and ranchers the ability to help meet the needs of an ever-changing global dynamic. … It is my goal to deliver a Farm Bill that provides focus and clarity to USDA's research enterprise. American agriculture is best served when we target our efforts and have focused, well-funded, and flexible research programs that can have widespread impact and find broad stakeholder support."

Steve Bjerklie, Contributing Editor, *Meat & Poultry* Magazine; correspondent, *The Economist*