## Sustainable Protein Impact Map: A Collaborative Action Framework Accelerating Innovation to Realize Manitoba's Impact Potential Important Definitional Notes SP - Sustainable Protein (as in Initiative/ Sector / System including often the closely associated agriculture [1] Principles of Reconciliation as described in "What We Have Learned - Principles of Truth and Reconciliation (pp3-4), 2015. Truth and Reconciliation Commission of Canada. [2] Circular Economy principles: A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. **IMPACT MAP**\* [3] Fit-for-purpose means tabular, spatial, meta and are forms of information and knowledge that are relevant, ULTIMATE BENEFIT authoritative, complete, accurate, integratable, inoperable, and affordable. Developed as part of Manitoba's Sustainable Protein Advantage Strategy, under the guidance of [4] 21st Century competencies involve the ability to meet complex demands, thrive in a world where change is Manitoba Agriculture and Resource Development and the Manitoba Protein Consortium. constant and continuous learning draws on many different complementary of skills such as: learning - critical **BE01 Manitoba proudly leads Canada** thinking, creativity, collaboration, innovation, self-direction, accountability, and communication; literacy - digital and the world as an innovative Jan 14, 2021 ver. (35.75 x 29") information, media, technology; and life skills - flexibility and adaptability, leadership, initiative, productivity, and model for high-value sustainable protein that nurtures and benefits Members of the Design Team all people, the local environment, [5] Sustainability strives to attain balance across four dimensions: (a) place minimal pressure and impact on the and the climate This Impact Map was co-created through the generous environment: (b) promote all aspects of an individuals health and well being: (c) be accessible and culturally contributions and guidance of a diverse Design Team: acceptable; (d) be economically viable and affordable (source FAO, WHO). Chris Anderson - Protein Industries Canada [6] For example, to inform, advance, and communicate policies, practices, research, innovative enterprise, Local Environment Dominique Baumann - Roquette industry, marketing, measurement and valuation, consumers, and the public. **Penultimate** Sav Bellissimo - Federated Co-op Ltd. [7] For example, indigenous people with traditional knowledge, scientists and researchers, analysts, marketers, **Benefits** practitioners, policy-makers, communicators, management-planners, etc. Carson Callum - Manitoba Beef Producers BE03 Public knowledge of and trust in the agriculture =11 Consume benefit from regarded as a sustainability leader – in Canada and globally and is a sustainable globally competitive and secures grows with and secures are more resilient are reduced is strengthened with enhanced [8] UN SDG goals, and in particular #4 - Quality Education; #5 - Gender Equality; #8 - Decent Work and Tim Faveri - Maple Leaf Foods and carbon new business creation, and water-related Economic Growth; #10 - Reduced Inequalities; and #16 - Peace, Justice, and Strong Institutions. Bruce Hardy - Myera Group ecosystem service [9] This intervention and outcome draw on the Conclusions - Other Considerations section of a 2017 report titled improved biodiversity Wayne Hiltz - Manitoba Chicken Producers "Matchup: A Case for Pan-Canadian Competency Frameworks" by the Canada West Foundation. Jim House - University of Manitoba [10] OCAP™ principles are complied with regarding the right of First Nations to own, control, access, and Marcel Joaquin - IQFoodChain possess information about their peoples. Egbert Frank Knol - Topigs Norsvin Susie Miller - Canadian Roundtable for Sustainable Crops Duncan Morrison - Manitoba Forage & Grasslands Association LONG-TERM GOAL **MEASUREMENT** Lee Anne Murphy - Protein Highway \_\_\_\_\_\_ MMV01 MB and individual Henry Rowlands - Detox Project actors in the SP system LTG01 Through strengthened collaboration and accelerated innovation, Manitoba realizes its collective and equitable potential to produce AND VERIFICATION Denis Tremorin - Pulse Canada SOIL, ECOSYSTEMS measure, report, and value respectively their David Weins - Dairy Farmers of Manitoba protein that is diverse, high quality, healthy and increasingly & BIODIVERSITY collective and individual Robin Young - Food Development Centre sustainable protein activities and make adjustments AND HEALTH PERFORMANCE BASELINE / BENCHMARKS measurement on MB's SP strategy implementation (this map) SE10 Landscapes regionally have the ability to buffer climatic events like floods and droughts better Longer-term outcome MMV15 ECOSYSTEM GOODS & SERVICES especially water quality and watershed management, are defined and tracked SE04i to SE09i Individually or a mix of -Functional area outcome adopt, adapt, or develop, and implement, outcomes from SE01 are inherited natural area, crop, agricultural, and by-roduct systems [D] inclusive of indigenous Intermediate outcome uautuutai experiense ana reamings This list of sustainability attributes will need to be assessed for applicability to MB MMV16 SOIL HEALTH indicators are defined and tracked FINANCE (FI) ENT: MMV09 MONITORING: MMV10 VERIFICATION: MMV11 CERTIFICATION: MMV12 Develop Trusted monitoring methodologies and protocols and protocols are deployed to track core sustainability performance metrics y FI02 SP initiative sponsors and contributors see results from their investments and contribution of time, money facilities, contributors commit to contribute the required in-kind resources Group of related types of [C] Modern technology include MMV22 Support systems to manage MMV processes and data RESOURCING `~~------AND FUNDING SUSTAINABILITY INNOVATION [F] Innovation is ideas, knowledge | | and technology applied to deliver a performance improvement. It is not just an idea, but an idea that impactful SP activities and grows globally competitive innovative `~-----PARTNERSHIP FI20 Voluntary carbon verification valuation and aggregation programs and platforms are utilized in MB FI17 The financial community supports and invests more in SP activities in MB IN13 SP approaches and benefits t are demonstrated and showcased at scale at living labs are uncovered, advanced and lested IN16 Limited SP resources are focused on the importar activities first (e.g., greatest leverage, critical path, etc.) 1N19 More companies and other organizations are attracted to and engage with MB's SP research and innovation system IN15 MB is able to leverag best-in-class thinking (e.g., circularity to accelerate SP innovation IN10 Idea and knownow exchange is expanded and valuable cross-sectoral partnerships are established FI15i Deploy funding and financial support program for SP projects that are guided by FI16i Adopt consistent, evidence-based approaches to market to the CORPORATE investment community N11 Stronger and more trusting indigenous partnerships focused on EP are created FI17i Adopt consistent, evidence-based approaches to market to the FINANCIAL FI19i Implemer MB carbon pricing through policy and regulatory tools government regulations, policies and incentives to encourage the design of new financial and implement tailored investment structures for Indigenous businesses IN16i Establish priority criteria, updated periodical and apply them to set an innovation agenda IN10i Develop networks and cross-sectoral partnerships in MB [G] IN11i Build stronger indigenous relationships focused on SP business opportunities IN15i Identify, adopt and apply leading sustainability approaches and framework IN14i Design and launch innovation challenge competitions WF12 Indigenou community cohorts have the knowhow to create, grow, and sustain Indigenou SP businesses in their community BM22 Consume are more aware and literate of protein production, processes and products (whole value chain) [7] to the SP initiative are able to have BM17 Compellir innovation and sustainability STORIES inspire and engage more people in the SP BM18 The SP sector LEVERAGES CANADA'S positive agri-food and environmer brands BM19 MB DIFFER-ENTIATES itself based on its inherent strengths, actions underway and potential IK03 SP data, information and knowledge are fit-for-purpose [3] to better support the SP initiative & KNOWLEDGE <u>`</u>-----BM22i Create and share communication and educational materials on MB's SP journey and story BM21i Define and apply to branding communications and marketing, MB's SP principles (which work for all sizes BM26i Implement frameworks for cooperation for protein marketing groups WF07i Design and implement or update and enhance co-operative direct experience based SP learning programs WF10i Design, develop, and implement new innovative learning models led and owned by indigenous peoples founded on OCAP principle [10] adopt, deploy (and integrate where appropriate) leading MMV and reporting methodologies WF15i Craft and market compelling narratives that SP sector Development [8] and Circular Economy goals [12] with the SP workforce WF15i Craft and market compelling narratives that SP sector employees and learners see themselves in WF111 Design and implement equitable learning and work opportunity approaches for indigenous peoples, genders, newcomers, and people and implement learning programs for small indigenous community cohorts centred around SP business opportunities IK23 IP policy better recognize indigenous rights and culture, and is equitable for indigenous researchers and their communities **WORKING TOGETHER** IK17 SP-related land resource management information and research knowledge needs are better known IK19 SP-related measurement and valuation information and research knowledge needs are better known 1K20 SP market intelligence and communication related information and research knowledge needs are better known IK18 SP-related R&D information and research knowledge needs are better known `\*------**COLLAB SKILLS** IK14i Translate SP knowledge for consumption by business, industry, government, and other across the PIO7 WASTE Nécessary waste and recycling facilities and services are available to support current and future the SP supply chain needs POLICY value chain WT13 More relationships are struck, and greater trust is built and accelerated WT06 PRIORITIE Comprehensive and conerent strategies, tactics, plans, and priorities guide collective efforts across the SP sector WT11 Contributo to the SP initiative feel connected and an integral part of larger SP sector transformation and communicate a current and future waste understand speeds, including operating costs, of the SP supply chain periodically and communicate current and future energy needs, including operating costs, of programs utilize evaluation criteria requiring strategic collaboration in relation to SP strategies and follow a shared set of principles for the SP initiative (Ten Principles of Reconciliation [1]; Circular Economy [2], Sustainability on a periodic survey of current SP actors of their challenges, opportunities across the sector work initially on priority pre-competitive public good, or complex problems requiring collaboration strategies and actions of SP initiative contributors to identify and act on complementarities and synergies intention to support the SP initiative, integrate it in your plans, and deliver repeatedly with ongoing opportunities to understand, respect and be true to the values equality, diversity, and inclusion and develop champions and leaders advocating collaboration at all levels across the SP sector formal and informal networks throughout the SP sector locally to globally approaches and systems that are fair and treat all people respectfully the SP supply the SP supply PI24 Win-win HR solutions are implemented that both protect union jobs while also enabling PI20 MB's regulatory and policy environment is easier to navigate for SP-related businesses PI21 Innovative regulations and policies target reduction of waste PI17 By-product use and safety approval processes are progressive This Sustainable Protein Impact Map\* has been developed as part of Manitoba's Sustainable Protein Strategy. Consulting led by PI14i Undertak spatially-explicit landscape and farm level analyses to valorize ecosystem goods and services periodically PI24i Initiate a collaborative dialogue between SP managers and unions to explore any potential barriers PI17i Engage in forward-looking policy dialogues and advocate for by-product use and safety (e.g., for livestock feeding) PI18i Engage in a dialogue and advocate for more flexible immigration policies supportive of SP human PI21i Engage in dialogue and advocate for better policies supportive of waste reduction, Sustainable Growth Co. Outcome Mapping led by R. Keith Jones & Associates **Challenge Dialogue**

Colllaborative Outcome hange Framework using Theory of Change and *Kumu* online system mapping software use and recycling, sustainable

PI16i Direct and inform SP-related policy with well-designed objective SP R&D

PI15i Align and implemen business incentive programs for novel SP

PI17i Engage in forward-looking policy dialogues and advocate for by-product use and safety (e.g., for livestock feeding)

PI18i Engage in a dialogue and advocate for more flexible immigration policies supportive of SP human resources needs

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P125i Explore
and pilot
the use of
a core competer
equivalency
frameworks
for HR