we need a broad and inclusive understanding of the world that incorporates many knowledge systems and world views. Our commitment to reconciliation with Indigenous peoples includes reconciling different approaches to understanding the world. Frameworks such as two-eyed seeing and walking on two legs guide our approach.

Interdisciplinarity (engagement and openness; innovation and adaptability; excellence and responsibility; and respect and reciprocity): Many of the most interesting academic questions are rooted in very complex problems that cannot be solved by a single researcher. Team-based work   often requiring team members from a variety of disciplines and trained in multiple methodologies   is the path to answering these questions. In addition to offering strong support for specialized disciplinary work, at SFU we support scholars working across disciplines by supporting partnerships both within the university and with other universities.

: We train students to be the next generation of researchers, innovators, and teachers. We include our students in the research process, to the benefit of both the students and the research produced. We also use research to inform our educational approach. This research-informed teaching and learning extends from our own programs through to the way we train others to teach, for example in the K-12 system.

Engagement with Partners or Communities (excellence and responsibility; respect and reciprocity; resilience and sustainability; engagement and openness; and innovation and adaptability): In many fields of inquiry, engaging with communities outside academia leads to better scholarship. Those communities may include individuals, municipalities, First Nations, industry, NGOs or others. At SFU we support partnership within and outside academia to drive better scholarship and greater impact. This includes local and regional partnerships, national partnerships and international partnerships.

Knowledge Mobilization (innovation and adaptability; excellence and responsibility): Research is not complete until the created knowledge is shared. That sharing happens via many mechanisms including traditional academic publication, policy creation, newspaper op-eds, white papers, social media, performances, creative artifacts, patents/licensing, new product development, creation of a company and other forms. At SFU we embrace open science, data and publishing. We also foster a culture of innovation both in the way that we perform scholarly work and in the way that we support it.

SFU is a comprehensive research university, with research and other scholarly activity spanning a wide range of disciplines and approaches. The priority areas identified below capture institutional priority areas for 2023-2028.

Each of the priority areas below spans multiple disciplines. As an academic institution we are committed to building multi-disciplinary communities of practice in these areas. We also note that these priority areas intersect with each other and that some of the most interesting research happens at those intersections. For example, climate change is precipitating biodiversity loss. The One Health approach, which is actively employed by SFU researchers, recognizes that human health is connected to the health of animals and the environment thus strongly linking priority areas #1 and #2 below.

The U   Sustainable Development Goals (SDGs) provide an international framework

committed to the SDGs and are putting them at the heart of our international engagement framework. Where relevant, links to SDGs are included in the priority area descriptions below.

Priority areas include:

1) **Advancing Community-Centred Climate Innovation** (C3I) (SDGs 3, 6, 7, 8, 9, 10, 11, 13)

Climate change represents one of the greatest challenges of our age. As a research topic, it crosses disciplines, touching deep societal, health and justice issues as well as climate science, mathematical modelling, biodiversity, and profound technological and economic change. While climate change is a global issue, its effects and the resources available to adapt and to mitigate future warming differ from community to community. Some communities will be pressed to adapt to drought and fire, while others will be combatting floods and landslides. Some will have access to considerable local renewable energy sources, and some will not. Different communities may then embrace different paths to resilience. Helping communities become resilient to the effects of the changing climate by integrating low-carbon approaches into their planning is a daunting multidisciplinary challenge. With research strengths that span all of the relevant disciplines, SFU is well-positioned to take on this challenge. This priority area engages our researchers with all levels of government, industry and community members.

2) **Supporting Health and Wellness of Individuals, Populations and Communities** (SDGs 1, 2, 3, 6, 10)

The connection between the health and wellness of an individual, and the (global) community in which they live has never been more obvious. As we write this plan, British Columbia is in the midst of two public health emergencies   the global COVID-19 pandemic and a sharp rise in drug overdoses and
the effects of deep social inequities and discrimination, the fragility of our health systems, the psychological consequences of isolation, a lack of trust in authority/science and many other profound issues that can only be addressed through world-class research. SFU researchers are engaged in responding to the threats and burdens of disease via many approaches, including basic research into fundamental molecular and cellular processes, development of new technologies, tests, treatments for individuals, and public health approaches. They are also leaders in transforming our response to health issues through social determinants and cultural critique. Harnessing big data, genomics, molecular tools and treatments, wearable technologies, and other technological and social interventions, our researchers are influencing therapeutic development, health policy and individual health throughout the lifespan. SFU researchers also generate wellbeing in the communities we work with by engaging in mutual, respectful and empathetic processes of knowledge production.

3) **Expanding the Foundations of Knowledge and Understanding our Origins**

SFU researchers ask fundamental questions about our natural world, as well as our societies and cultures. Insights that arise from this work change the way we think about the world and our place in it. SFU researchers measure and predict natural phenomena on multiple scales from the subatomic to the cosmic, from a single gene to a multi-celled organism, and from single enti92 reW*hBTTf1 0 0 1p(und)23(a)-10(m)593 28uv20.00(

better equipped to look forward, pushing the boundaries of discovery into new critical frontiers. Driven by curiosity, our researchers are deepening our understanding of both the natural world and ourselves.

4) **Strengthening Democracy, Justice, Equity and Social Responsibility** (SDGs 5, 8, 10, 16)

The polarization of our society, mis/disinformation, threats to democracy, population migration and changing patterns of convergence and conflict challenge the structures of societies and shape the ways we interact with each other. Researchers at SFU are deeply engaged in studies of data and media democracy, and in questions of equity and justice in relation to environmental, educational, health, economic and governmental systems. This includes the causes and consequences of poverty and inequality. Matters of social inclusion, identity, diversity and belonging are key drivers behind how individuals and groups perceive and connect with society at large. Considerations related to justice, equity and social responsibility also shape the ways we engage with communities, value their contributions, and inform a commitment to fostering dialogue, relationship building, imagination, critical design, and transformative learning. Environmental Social Governance research provides opportunities to foster the implementation of these values by industry. Fostering community participation in research is both a vehicle for social change and a critical source of scholarship.

5) **Transforming Industry and Economies through Technology, Management and Policy** (SDGs 9, 12)

Technology impacts every aspect of our lives at multiple scales from nanotechnology to satellite communication to technology for work and home life. These technologies are applied to all areas of human endeavor, from building a sustainable world, to improving human health, to transforming the way we teach and learn. SFU researchers are involved in new technology creation at all levels: creating the new materials that enable those technologies; engaging in design research and developing creative technologies that change how we interact with technology and each other; developing new types of hardware to enable future platforms like quantum computers; writing the algorithms required to process data and model the world around us; and integrating and adapting existing technologies to a changing world. The adoption and use of emerging technologies are guided by management and policy research as one means to create economic and societal value. These research domains investigate the economic, environmental, health, political and societal tradeoffs between incumbent industries and technologies and the emerging alternatives. SFU researchers also study the processes that underlie the adoption and use of new technologies into the hands of consumers and communities, as well as inequalities in technological uptake and impacts.