

Genome BC: Introduction and Current Opportunities





Agenda

- **Introduction to Genome Canada**
- **Introduction to Genome BC**
- **Funding Programs**
 - ✓ Commercialization Programs
 - Proof of Concept Program (POC)
 - Genome BC Strategic Opportunities Fund for industry (SOFi)
 - ✓ User Pull Programs
 - *Genome Canada Genomic Applications Partnership Program (GAPP)*
 - *Genome BC User Partnership Program (UPP)*
 - ✓ Strategic Opportunity Program
 - Strategic Opportunity Fund (SOF)
- **Q&A and project discussions**



Introduction to Genome Canada



Genome Canada

History

- Genome Canada is a not-for-profit corporation created in February 2000
- Genome Canada is an important funding and information resource relating to genomics and related technology research in Canada

Mandate

- Develop and implement a national strategy in genomics and proteomics research for the benefit of all Canadians in key selected areas such as health, agriculture, environment, forestry, fisheries and new technology development
- Investing in large-scale science and technology to fuel innovation; and
- Translating discoveries into applications to maximize impact across all sectors

Funding

- Federal Government investment in Genome Canada represents 33% of the funding (variable between programs) for research projects and technology innovation centres



Genome Canada

Vision

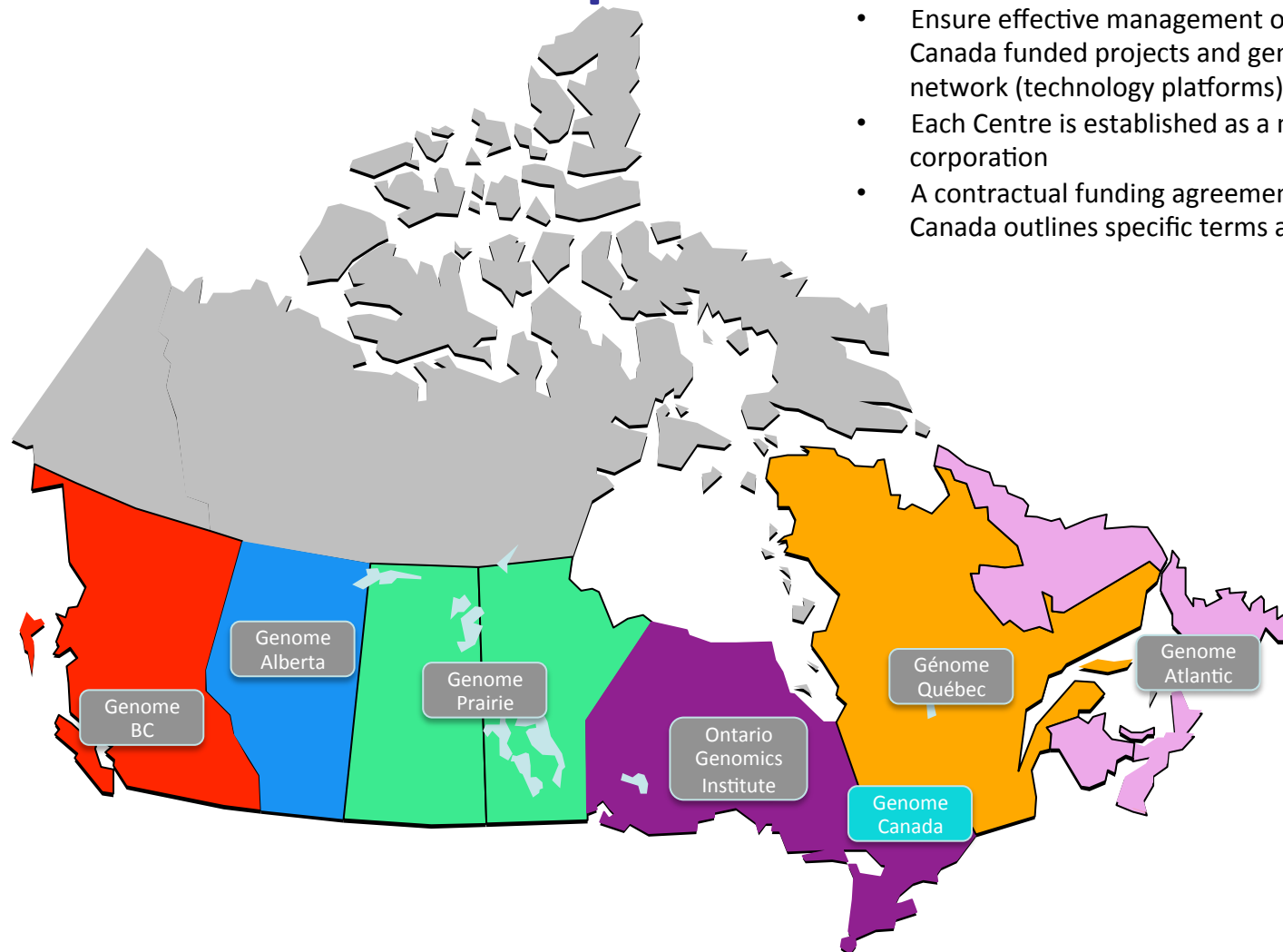
- To harness the transformative power of genomics to deliver benefits to Canadians

Mission

- Connecting ideas and people across public and private sectors to find new uses and applications for genomics
- Investing in large-scale science and technology to fuel innovation; and
- Translating discoveries into applications to maximize impact across all sectors



Canadian Genomics Enterprise

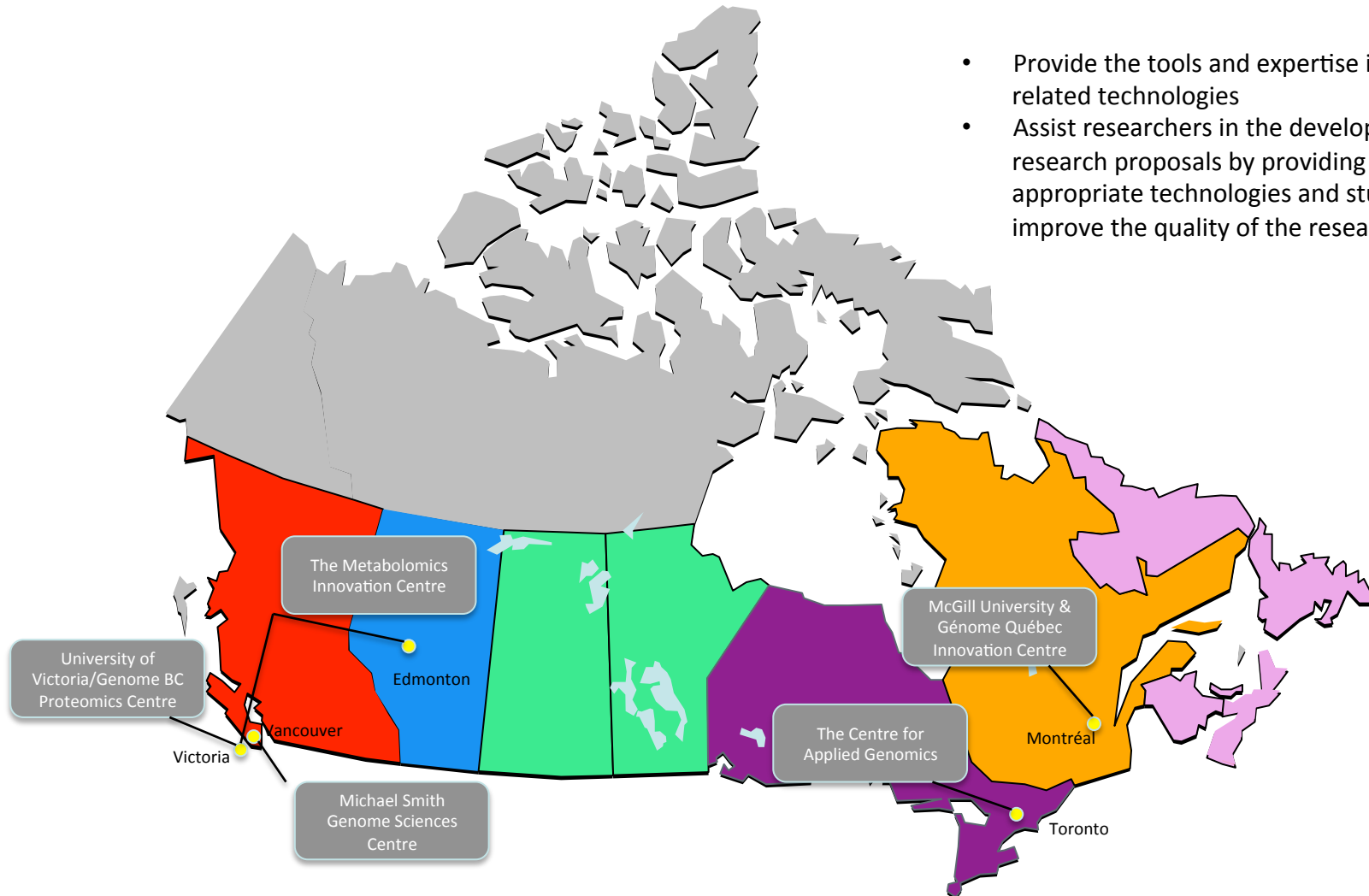


- Ensure effective management of Genome Canada funded projects and genomics innovation network (technology platforms)
- Each Centre is established as a not-for-profit corporation
- A contractual funding agreement with Genome Canada outlines specific terms and conditions



Current Science and Innovation Centres

- Provide the tools and expertise in genomics and related technologies
- Assist researchers in the development of research proposals by providing advice on appropriate technologies and study design that improve the quality of the research





Introduction to Genome BC

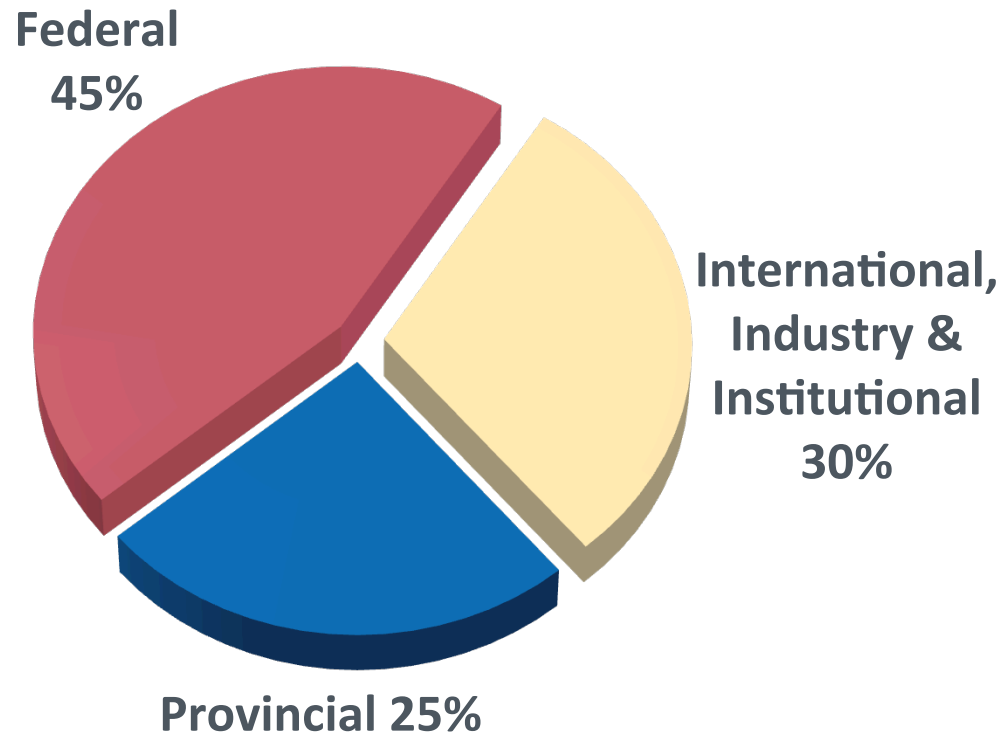


Genome BC Background

- Genome British Columbia was formed in July 2000
- The initial strategic plan covered the period 2001 through 2005, with a \$69M program
- Genome BC successfully implemented its second strategic plan (2005-2010) with investments exceeding \$300M
- Genome BC is currently implementing its third strategic plan (2010-2015) planning investments of \$340M



Investment Sources



Research Investment Objectives

- Match BC's key economic concerns.
- Leverage contributions from other organizations.
- Maintain partnerships with a broad cross-section of provincial institutions and locations.



Genome BC Portfolio

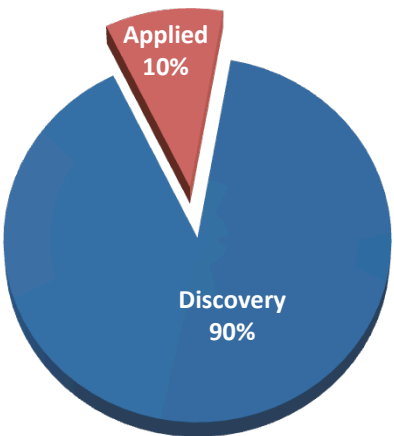
- A catalyst for the life sciences cluster on Canada's West Coast
- Cumulative portfolio of over \$625M across 180 genomics research projects and science and technology platforms
- Focusing on sectors of economic importance to BC and Canada:
 - **Agri-food**
 - **Aquaculture & Fisheries**
 - **Forestry**
 - **Mining, Energy & Environment**
 - **Human Health**
- Aims to generate social and economic benefits



A Growing Focus on User Driven Research

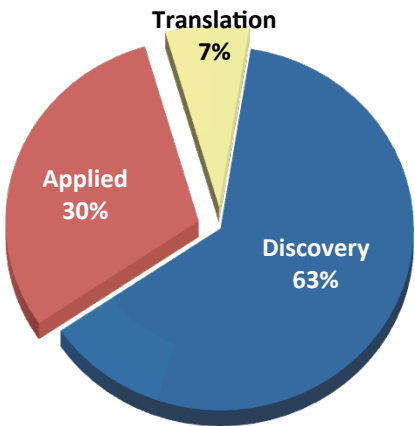
2000-2005 Plan

*Building the
Foundation*



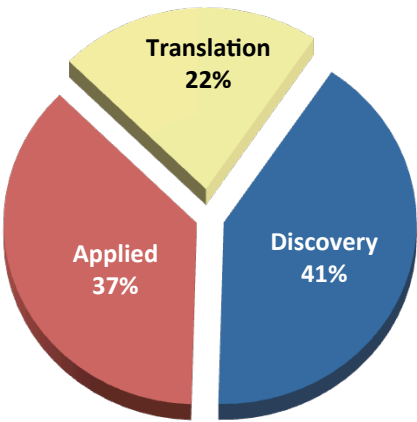
2005-2010 Plan

*International
Recognition for
Excellence*



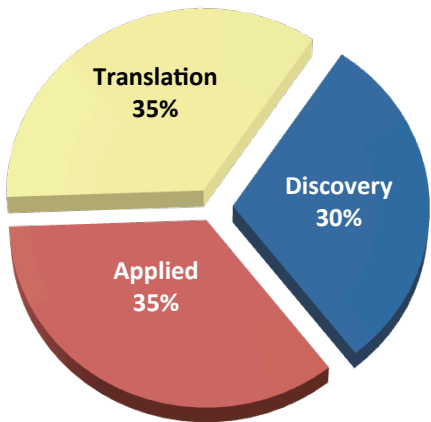
2010-2015 Plan

*Strategic
Investment for
Applications*



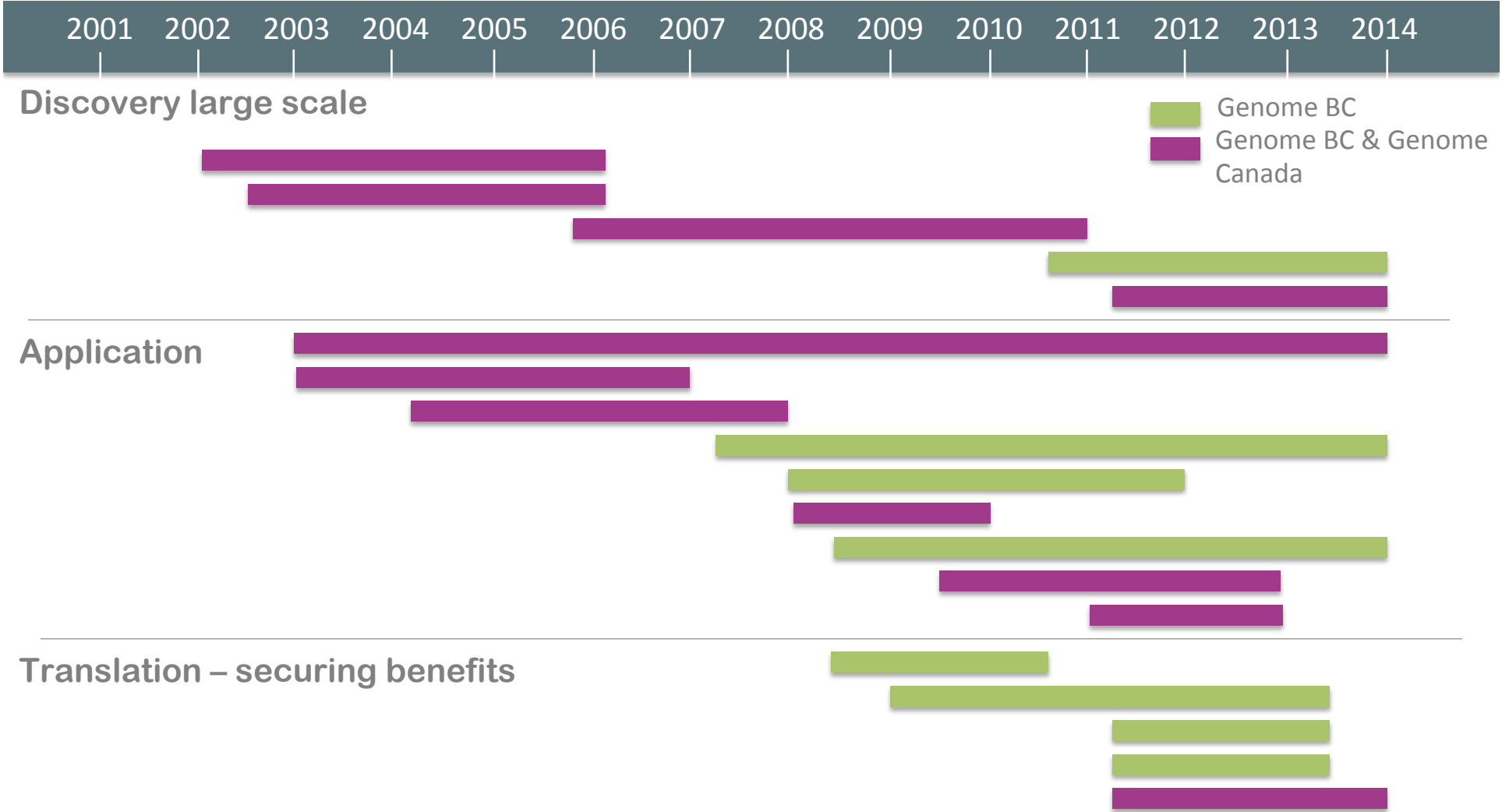
2015-2020 Plan

*Sector-driven
User Co-investment*





The Evolution of Genome BC programs





Sector Focus and Development

- **Health Sector**
 - Predictive Tools, e.g. Cancer
 - Chronic Disease Management
- **Agriculture**
 - Bioproducts
 - Grapevine
- **Mining**
 - Efficient ore extraction
 - Remediation
- **Environment**
 - Monitoring
 - Identification
- **Energy**
 - Efficient sources of Biomass
 - Cellulose to Ethanol
- **Forestry**
 - Insect/Pathogen Threats
 - Forest Renewal & Management
- **Fisheries**
 - Improved Aquaculture
 - Conservation of Wild Stocks
- **Society and Ethics**
 - GE³LS Monitoring & Research
 - Public Education and Outreach



Commercialization Programs



17 Companies Advanced by Genome BC, including:





Proof of Concept Program (POC)

Advance previously developed applied science discoveries and viable commercialization opportunities

- Projects to leverage the Genome BC funds 1:1
- Total budgets typically range from \$50K - \$500K
- Genome BC to provide no more than \$250K one-time funding per project. Larger awards allowed under exceptional circumstances with staged funding dependent on achieving agreed upon milestones
- Project terms range from 1 – 2 years
- **Next intake for full application on December 8, 2014.
Contact Genome BC at least 3 weeks in advance to register and discuss the project with a Sector Manager**



Strategic Opportunities Fund for Industry (SOFi)

Direct investment in projects with eligible small and medium-sized companies located in BC

- Supports genomics applications at a pre-commercialization stage in all life sciences sectors
- Projects must leverage the GBC funds 1:3
- Total budgets range from \$400K - \$1M
- Genome BC will provide up to \$250K. Larger investments may be approved in exceptional cases
- Maximum project term of 2 years
- **Rolling intake. Contact Genome BC at any time**



User Pull Programs



New Programs to Enable “User-Pull”

Goal: to support research targeted toward the needs of sector “Users” (e.g. industry, government agencies, not-for-profits) and encourage collaborative research between “Users” and academia

“User Pull”: catalyzing transfer of innovation to Users (e.g. economic gain, commercialization)

- User leads
- User investment
- User demonstrated resources, expertise and intention to put the plan into effect
- User actively engaged in the development of research objectives
- Expected to result in net benefit to BC and Canada

For example:

- **Genome BC’s User Partnership Program (UPP)**
- **Genome Canada Genomics Applications Partnership Program (GAPP)**
- Sector-focused mini-programs
- Strategic partnerships



Genomic Applications Partnership Program (GAPP) – Genome Canada

Pull new technologies and the outputs of genomics research from academia into companies to address key challenges and realize new opportunities

- Projects must leverage Genome Canada funds at least 1:2 (at least 33% from user partner)
- Total budgets range from \$300K - \$6M
- Project terms range from 6 months – 3 years
- **Rolling intake of Expressions of Interests (EOIs)**
- **Third intake of Full Proposals on March 27, 2015**



User Partnership Program (UPP) Genome BC

Supports industry-led research undertaken in partnership with academic researchers

- Projects must leverage the Genome BC funds at least 1:1 for small-scale projects and 1:3 for large-scale projects
- Total budgets range from \$200K - \$4M; research may progress through multiple phases, each defined by distinct research plans
- Genome BC will provide a maximum of \$200,000 (small-scale projects) or \$1,000,000 (large-scale projects)
- Project terms range from 1 – 2 years (per phase)
- **Rolling intake. Contact Genome BC at any time.**



Strategic Opportunity Program



Strategic Opportunities Fund (SOF)

Catalyze or seed new projects and initiatives at BC's research institutions of strategic importance to BC's sectors

- Up to three intakes planned over approximately three years and an investment of \$3M directly by Genome BC
- Projects must leverage Genome BC funds 1:1
- Total budgets typically range from \$50K - \$400K
- Genome BC will provide no more than \$200,000 one-time funding per project
- Project terms range from 1 – 1.5 years
- **Next intake planned for early December 1, 2014**



Funding Opportunities - Summary

Genome Canada:

Large Scale Applied Research Programs (LSARPs)

Genomic Applications Partnership Program (GAPP)

Genome BC:

Strategic Opportunities Fund (SOF)

User Partnership Program (UPP)

Proof of Concept Program (POC)

Strategic Opportunities Fund for Industry (SOFi)



Applying for Funding through Genome BC

- Review Program Guidelines and information:
 - <http://www.genomebc.ca/research-programs/opportunities/current-funding-competitions/>
- Develop project concept and research team (User partner, if applicable)
- Contact Genome BC for program guidance, feedback on project concept, technical questions or clarification

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