Genomics Tools for Optimization of Biomass Production

*Life-sciences solutions that will help secure
the future of B.C.'s key social and economic sectors.*

Brad Popovich, Chief Scientific Officer, Genome BC

BIO Pacific Rim Summit on Industrial Biotechnology and Bioenergy

October 11, 2012

Panelists

Loren Rieseberg: Professor, Dept.. of Botany, UBC

- Development of hybrid sunflowers as a source of biomass and oilseeds

*Sally Aitken*: Professor, Dept. of Forest Sciences, UBC

- Using genomics to inform reforestation practices in changing climates

Carl Douglas: Professor, Dept. of Botany, UBC

- Creating traits in poplar for biomass production and enhanced utilization

Background

- Co-founded by the late Dr. Michael Smith, Nobel Laureate, Genome British Columbia was formed in July 2000

- The initial strategic plan covered the period 2001 through 2005, with a $69M program

- Genome BC has successfully implemented its second strategic plan (2005-2010) and exceeded the $300M research program

- Genome BC has initiated its third strategic plan (2010-2015) and plans a $340M research program
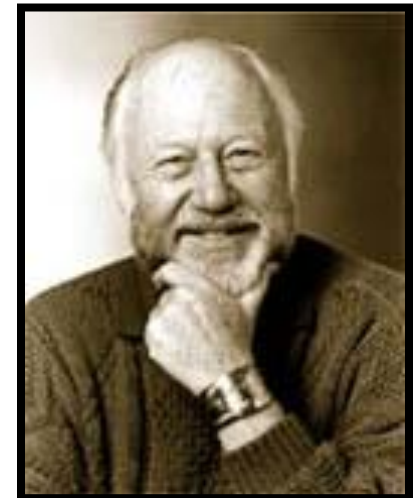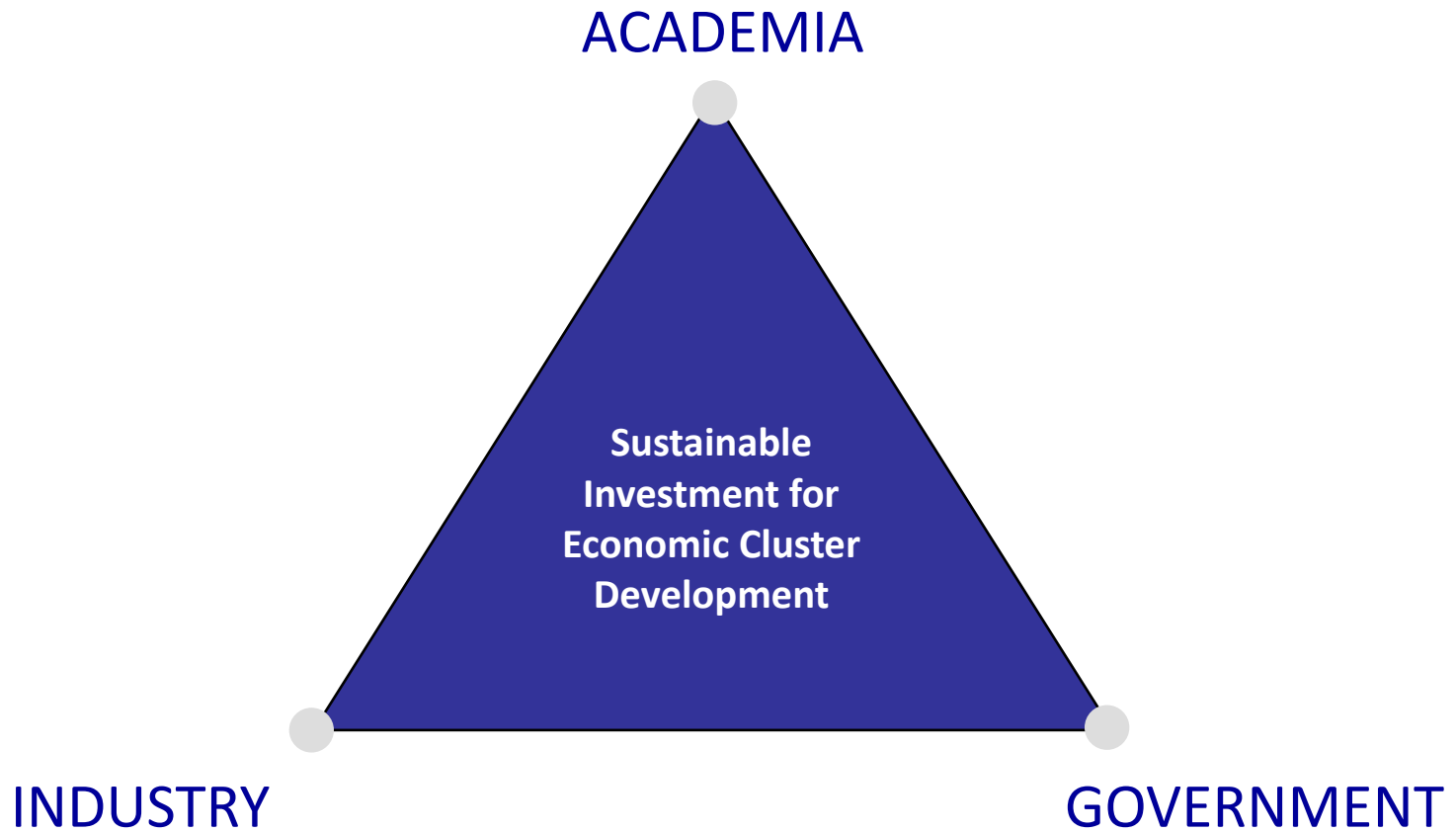
Sector Focus

- **Health Sector**
  - Predictive Tools, e.g. Cancer
  - Chronic Disease Management

- **Agriculture**
  - Bio products
  - 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**
  - GE^{3}LS Monitoring & Research
  - Public Education and Outreach

Role of Genome British Columbia

ACADEMIA

Sustainable
Investment for
Economic Cluster
Development

INDUSTRY

GOVERNMENT

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