Queen’s University Strategic Research Plan

Exploring the Universe, Challenging the World

Research brings Queen’s to the world and the world to Queen’s

SRP Development Schedule: 2017...

Advisory writing group
Yolande Chan, Paula James, Susan Lord
Jim McLellan, Richard Oleschuk
Dylan Robinson, Steve Smith

Phase 1
(Winter-Spring)
Seek advice: Deans, SON, SRT
Drafting a Plan

Phase 2
(FALL 2017)
Cont’d Feedback to shape the plan
AMS/SGPS, Law
Senate update 2017

Phase 3
(Winter)
Senate Update Nov 28

Phase 4
(Winter)
Penultimate Draft: Feedback Consultation
Senate Approval Submission April 2018

Phase 5
(Winter)
Post-SRP
Communication - Implementation

Queen’s Strategic Research Plan 2018
Shaping the SRP Narrative & Revisions: 2018

**SRP Timeline to April Senate**
- **January**: SRP Draft to AWG
- **February**: Deans SARC Feb 6, AWG Feb 8, ADRs Feb 8, AMS/SGPS Townhalls
- **March**: SARC Mar 6, Senate Mar 27 Notice of Motion Penultimate draft
- **April**: Senate Submission

**Advisory Writing Group Feb 13**
- Yolande Chan, Paula James, Susan Lord
- Jim McLellan, Richard Oleschuk
- Dylan Robinson, Steve Smith

**Queen’s Strategic Research Plan 2018**

**Queen’s Strategic Research Plan 2012-17**

- 62 pages of two sections + appendices
- PDF abridged version on the website

**Part 1 of the Plan**, Guiding & Supporting the Research Enterprise... (tools & implementation)

**Part 2 of the Plan**, the Thematic Focus, outlines four major research themes

2017/2018
Queen’s Strategic Research Plan 2018

- Website driven communication
  - Format consistent with U15 & others
  - Collaborate with UR for Graphics driven web-based communications

Thematic Research Areas

- **Sub-themes within each focus theme**

Part 1 of the Plan, Guiding & Supporting the Research Enterprise... (tools & implementation)

2017/2018

Queen’s University Strategic Research Plan

Exploring the Universe, Challenging the World

Queen’s tradition embraces 175+ years of transformative educational experiences coupled with a 21st century research vision. Queen’s connection to the future addresses grand challenges and the needs of the modern world. Our research excellence and innovation is rooted in over 50 outstanding interdisciplinary Centres, Institutes and Departments, which are driven by scholarship and impact. Research at Queen’s is committed to an environment of inclusion and diversity that collectively strengthens the fundamental threads of society and discovery. Innovation at Queen’s drives partnership and opportunity and is reflected in our presence within the U15 group of Canada’s leading research Universities. We are committed to expanding Canada’s international research leadership.

Draft

Feb 2018
Strategic Research Plan *draft*  
Preamble ...*excerpts* 2018

“The SRP embraces the foundations of the Truth and Reconciliation Commission (TRC) task force report and the Principal’s Implementation Committee on Racism, Diversity and Inclusion (PICRDI). Equity, diversity and inclusion are profoundly important in achieving excellence of ideas, scholarship and innovation within the university research environment and create opportunities for students and our international research peers.”

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Innovation Environment 2018

**Innovation & entrepreneurship programming**

- OPI outreach via ADRs, SARC, FAS – Cttee of Departments, Clinical Heads etc
- CAIP - Eastern ON & Invest Ottawa
- Express License Launch in support of DDQIC Foundry Program
- Innovation Asset Map round 1
- IRI innovation hub discussion
Global Research Environment 2018

Advance international research collaborations
• Matariki theme: sustainability, environment

• Queen’s - MasterCard Foundation Scholars Program
  • Next-gen leaders supporting social transformation and economic growth in Africa
  • Opportunities within new MC Program structure
  • University of Rwanda – link to FHS
  • African Institute of Mathematical Sciences (AIMS)

• Big Science: McDonald Global Collaboration for the Discovery of Dark Matter with Liquid Argon

Research & Government 2018

Partnerships aligned with Federal government research & innovation programs

• 3 Supercluster proposals accepted for full applications (Feb 15)
  • CLEER - Clean low energy effective, engaged remediated
  • Most 21 - Mobility Systems and Technologies for the 21st Century
  • Advanced Manufacturing

• Engagement with NRC, ISED, MRIS & CMC future
• Green Centre Canada transitions

• NRCAN energy forum host and 2018 follow up
• Smart City Initiative & Ottawa-Kingston research asset mapping
• CFREF governance
SRP 2018

Strategic Research Plans
• Shared purpose
• Build on research excellence
• Create - Capitalize on new opportunities as they emerge to achieve excellence

Faculty Renewal 2018

Faculty renewal Plan: Year 1
• 40 faculty/yr 200 Faculty over 5 years

Central & Faculty Supports:
• 4 research advisors embedded in Faculties +2 Assign to cover SSHRC for Business, Law Education
• Plan Spring 2018 research event to bring together new hires from 2017/18
Strategic Research Plan 2012-17
Four Themes Consultation

1. Exploring Human Dimensions
2. Understanding & Sustaining the Environment & Energy Systems
3. Creating, Discovering and Innovating
4. Securing Safe and Successful Societies

Faculty consultation for SRP

1. Are the 4 Themes important & relevant to the areas of strength identified by the Faculties?
2. Are the 4 Themes tailored to Queen’s and future success of your Faculty/Dept?
3. Are there key aspects that will inform the research plan that are missing from the 4-Theme narrative?
Strategic influences on the Research Plan & research strengths at Queen’s

- National programs
- Research Centres & Institutes
  - University- and Faculty- based
  - International partners: Matariki Network
  - School of Policy Studies – 2018 report to the Principal

University-Based Centres or Institutes

1. SNOLAB
2. GeoEngineering Centre
3. Centre for Neuroscience Studies
4. Human Mobility Research Centre
5. Canadian Inst. For Military & Veteran Health Research (CIMVHR)
6. Beaty Water Research Centre (provisional)
Faculty-Based Centres or Institutes

1. Cancer Research Institute
2. Centre for Law in the Contemporary Workplace
3. Surveillance Studies Centre
4. Centre for International & Defence Policy
5. Centre for Studies in Primary Care
6. Centre for Studies on Democracy & Diversity

8. Translational Institute of Medicine (provis.)
9. International Centre for the Advancement of Community Based Rehabilitation (provis.)
10. Centre for Intergovernmental Relations
12. Queen’s Institute for Energy & Environmental Policy
Strategic Research Plan draft
Research Themes 2018

1. Securing successful and just societies through governance and policy
2. Fundamental Principles of Nature; from Discovery to Application and Innovation
3. Mobilizing creativity and defining cultures
4. Health, Wellness and the Determinants of Human Health
5. Sustainability, Environment and Resources
6. Designing the future through materials, computational analytics and engineering

Interdisciplinary Research: the journey to T-shaped researchers

Nature 2015 R.R. Brown et al
Interdisciplinary Research: T-Shaped Researchers

- Institutional research strengths that show potential for interdisciplinary collaboration incentivized through seed grants
- Reduce transaction costs: e.g. summer schools to develop constructive dialogue skills
- Provide platforms: seminars, research workshops, debating competitions to discuss challenges in cross-disciplinary research offer insights into norms & cultures of other disciplines
- Co-locate researchers from different disciplines who work on the same grand challenges
- Invest in interdisciplinary PhD cohorts, co-supervised by Profs from diverse Departments, Faculties or Research Centres/Institutes

Nature 2015 R.R. Brown et al

Strategic Research Plan draft
Research Themes 2018

1. Securing successful & just societies through scholarship, governance and policy

Sub-theme: Governance, Justice and Equality

Sub-theme: Democracy, Public Policy and Economy
2. Fundamental Principles of Nature; from Discovery to Application and Innovation

Sub-theme: Discovering the Universe and our place

Sub-theme: Ecology, Biodiversity and the natural environment
Sub-theme: Evolution of Life and the Planet

3. Mobilizing creativity and defining cultures

Sub-theme: Creative Production and Expression

Sub-theme: Society, Culture & Human Behaviour

Sub-theme: National & Global Indigenous cultures & vulnerable/marginalized peoples
4. Health, Wellness and the Determinants of Human Health

Sub-theme: Patient-Oriented research, Transformative Health Care and Health Promotion

Sub-theme: Evidence-based therapeutics, Fundamental and Translational discovery, applications for Life
Sub-theme: Health and analytics across populations & cultures

5. Sustainability, Environment & Resources

Sub-theme: Alternate Energy Solutions & Energy Policy

Sub-theme: CleanTech

Sub-theme: Protecting the natural environment
6. Designing the future through materials, computational analytics & engineering

*Sub-theme: Materials discovery and molecular design for global solutions*

*Sub-theme: Analytics and Digital Technologies*

*Sub-theme: Human machine interactions, mobility & Machine learning*