

CONCORDIA UNIVERSITY

January 15, 2016

DOUBLE OUR RESEARCH THE BOLD DIRECTION

New Thinking, New Culture

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Mandate: Recommend how best to position Concordia to *Double our Research*

Aspire

Context: The aspiration to *Double our Research* reflects the reality that research and creative production are primary drivers of university reputation. A reputation for high performing research speaks to the tangible benefits that flow to society from discovery, creativity, innovation, knowledge and training. It is equally vital to competing globally for talented faculty, students, postdocs and staff. The objectives of this strategic direction are measurably to increase, intensify and expand the scope, performance and significance of Concordia's research enterprise according to the following three baseline criteria.

External Funding: Concordia ranks 8/10 in terms of research dollars per full-time faculty member when measured against Canada's other comprehensive universities. Given that total research income in Canada dropped in 2014 for the first time in fourteen years, the challenge to increase research funding, necessitates that we simultaneously: a) increase individual grant success; b) mobilize and lead more large, institutional and inter-institutional grants; c) increase and diversify funding sources; and d) increase donor support.

Productivity: One commonly agreed metric among research grade universities is the number of journal publications per full-time faculty member. By this measure, Concordia significantly lags behind other Canadian comprehensive universities. Other valid indicators include juried exhibitions, artistic productions, published monographs, journal impact factors, matriculation and career placement of graduate students and postdocs. To nurture increased productivity, we need to place greater institutional value on research and HQP training; recalibrate current faculty incentive/reward structures; do better at linking research to curriculum; and introduce more flexibility in course delivery and service expectations to maximize time for research and creative activity.

Impact: A key to enhancing recognition for Concordia research is to increase its impact by: prioritizing output that is transformative to scholarship and knowledge in and across academic disciplines; better integrating research activities into the needs and priorities of the external communities with whom we engage; engaging more in co-production/co-creation of knowledge with collaborators from all sectors of society; improving knowledge translation to industry, public policy and stakeholders.

Four strategies to create a next-generation research grade university

Integrate

Institute thinking: Concordia can most effectively make step-function gains to *Double our Research* by fostering transdisciplinary institutes that catalyze novel, convergent approaches to research and training that foster new ways of organizing knowledge and engaging with society. These institutes, which are at different stages of development, will support high-risk/high-reward research in fields that are truly cutting-edge; capitalizing on our diversity and regrouping our expertise to develop transformative perspectives on key topics where we can legitimately aspire to achieve national and international-level leadership that will measurably grow our output, impact and income in the short-to-medium terms.

Launched:

Digital Arts, New Media and Technology: Ever since the creation of Hexagram in 2002, Concordia has been an international leader in digital culture and research creation in a city that is a capital of design innovation and the arts. The university has invested heavily to build critical mass in this field. We are currently poised to launch a new, world-class Institute that will facilitate convergent research and creative practices in cognate fields such as games, interactive design, digital poetics, digital cinema, textile, photography and mobile media.

Aerospace: Montreal is one of three global hubs for aerospace R&D. This is a leading sector of Concordia research and training, and a major focus for industry and inter-institutional partnerships. In fall 2015 a new research arm was created within the Concordia Institute for Aerospace Design and Innovation (CIADI) to catalyze expertise across the Faculties of Engineering and Computer Science and the John Molson School of Business, with the potential to expand horizons to other fields of inquiry such as human determinants in flight.

In progress:

Life Sciences and Technology: From lab-on-chip engineering to nanoscience and mass spectrometry, Concordia is known for life-science-based technology and engineering, internationally renowned for non-human genomics (which is the single largest source of our external research funding), and recognized as Canada's leader in the disruptive new field of synthetic biology. These research areas are evolving and morphing across disciplines at staggering pace, creating a unique opportunity to aggregate our expertise for next generation discovery and application across the life sciences. (Launch 2016)

Preventive Health and Wellness: In Canada, more than 50% of public funding to support research is targeted to health and medicine, which is also a leading sector of industry R&D and object of private philanthropy. Concordia has cross-faculty expertise, community networks, spectacular physical and professional staffing assets (PERFORM), and axes within several existing research centers

that could be mobilized in a truly unique, innovative configuration around preventive health. (Launch 2016)

Indigenous Culture and Communities: Concordia has the largest critical mass of researchers and artists working in indigenous studies in central and eastern Canada. Unlike programs elsewhere that focus on land, legal status, and governmentality, our strengths address socio-cultural topics from youth to new media, art, and the dynamics of north-south relocation. At a pivotal moment of national reconciliation when Canadian governments and foundations are also investing meaningfully in indigenous studies research, Concordia has a golden opportunity to give new shape and visibility to indigenous studies in Quebec and Canada. (Launch 2017 to coincide with Canada 150)

Sustainability and Urbanization: Concordia hosts multiple university and national centers in sustainability research with complementary expertise in smart building design, water remediation, environmental impact assessment, climate modeling, sustainable enterprise, environmental policy, geochemistry, and transportation. In the fall 2015 we successfully showcased this expertise at the Montreal Summit on Innovation, *Climate of Change: Cities, Citizens, and Prosperity*, creating momentum to federate a unique institute on urban resilience and sustainability. (Launch 2017 to coincide with Montréal 375)

Potential:

Chemical and Materials Science and Engineering: Because materials development is typically one of the major limitations in technology advancement, expertise in materials science and engineering is in almost limitless demand. Furthermore, chemistry and chemical engineering are rapidly crossing new frontiers of knowledge, going beyond the study of atoms and molecules to explore their manipulation as complex systems with the potential to affect all forms of life. Concordia has research expertise in domains of materials science, chemical engineering, chemistry and biochemistry, but should seize this strategic moment to build new research capacity, particularly to align with our strategic priorities.

Innovate

We should invest in ourselves by creating an institutional *Knowledge Hub* that will mobilize research and professional expertise with polyvalent applications across the spectrum of 21st century research and creative activity. Such knowledge is currently pocketed and hidden in discreet sectors of the university. The coherent and more visible organization and mobilization of such knowledge would stimulate and reinforce creativity and innovation in diverse fields.

Methodological toolkit: Led by faculty researchers and staffed by research associates, autonomous postdocs and 4th year PhD students, Concordia should incubate a *methodological toolkit* that reassembles and repositions the

university's technically-oriented and human science knowhow in key, transferable 21st century knowledge domains. We have remarkable existing and emerging strengths in areas such as statistics, big data analytics, computer arts, modeling and design thinking, high performance computing, research data management, oral history, public opinion and survey research, ethics, quality systems and lean engineering. Conceptually and methodologically, these zones of expertise are increasingly in demand across all disciplines, informing and enriching inquiry into all manner of research challenges. Built in-house, the *toolkit* would be a powerful leveraging resource in *Doubling our Research*. It will equip researchers to push their thinking in new directions through access to highly specialized expertise. Reciprocally, such collaborations could also open research pathways for colleagues who provide the methodological expertise in the first place.

Research entrepreneurship incubator: In parallel with the *Toolkit*, the *Knowledge Hub* would also nurture *research entrepreneurship and innovation* by capitalizing on academic expertise in the John Molson School of Business to develop entrepreneurial and scientific management and leadership training for researchers, including PI's overseeing large teams and labs. Building, too, on the experience of *District 3* and the *Loyola Wetlab Makerspace*, and paired with the university's business development and technology transfer professionals, Concordia could become a national leader in mentoring innovation and incubating entrepreneurship, including social entrepreneurship, within and across the research community, with a view to significantly boosting research commercialization and spinoff activity.

Influence

Like many other universities, Concordia has a very good track record in terms of mobilizing knowledge with community and industry partners on a project-by-project basis. We have an opportunity to take such engagement to another level by creating a *Network of Think Tanks* that foreground Concordia as a convener of evidence-based, multi-stakeholder research and exchange.

Network of Think Tanks: These topic-specific entities are designed to address community or industry-specific challenges and related matters of public policy. Funded externally for the most part, *Think Tanks* require far fewer operational resources than a standard research center. Drawing intelligently on the advisory input of stakeholders, *Think Tanks* typically commission research projects that can be undertaken by Concordia faculty, postdocs or graduate students. *Think Tanks* can play a valuable role in raising Concordia's profile as a convener, social citizen and influencer of public policy, including in priority research areas. An *Aviation Think Tank* has just been created and preliminary discussions are underway regarding a *Think Tank on Global Trade*. It is feasible to imagine *Think Tanks on Disruptive Technologies, Preventive Health, Sustainable Cities, or Information Security and Privacy*, all of which relate to leading areas of our research.

Enable

Talent: Integral to achieving growth and intensification of research and creative activity is the recruitment and effective support of highly qualified graduate students and postdoctoral fellows. Concordia has traditionally taken a very passive approach to HQP recruitment and a largely ad hoc approach to their support. In the super-charged competition for talent, we need to target growth in our postdoc and thesis-based graduate student population in areas of strategic excellence and priority. And we need to couple this by proudly extolling our *Top 100 Under 50* global ranking, world-class facilities, and Montreal's cosmopolitanism as a university city.

Support: To enable a step function growth in research and graduate studies, Concordia must complete a cultural change in the institution that began with creation of the position of Vice-President, Research and Graduate Studies a decade ago. This means fully internalizing the mantra that research and creative work, postdocs, graduate students, and graduate studies are core to Concordia's mission, and moving to reflexively integrate this priority into all operations and marketing of the university. This is a collective responsibility to be shared across the organization. It demands a collaboration ethos, new thinking, fresh attitudes and new skills. How can the academic and non-academic sectors work together to streamline procedures (e.g: purchasing, finance, HR, IT, ethics) and more efficiently support or administer research? What are the new competencies in grant writing, project management, business development, foresight mapping that we need to bolster the research enterprise? How do we best position research and graduate studies at the heart of institutional branding, marketing and fund-raising? What is required, and from which units, to provide the best possible *encadrement* and mentoring for new faculty? Can we fast-track curriculum approval of new graduate programs in novel areas, and devise more supple forms of course delivery and workload management? How can we become uniformly pro-active, responsive and welcoming in our recruitment, admissions and mentoring of graduate students and postdocs? What is required to maximize internal and external mobility opportunities for faculty and students across programs, faculties and institutions?

Internationalize: The globalization of research and HQP mobility is happening at breathtaking speed, changing how research is done, and shifting perceptions about locations of excellence. The paradigm shift toward challenge-driven research necessitates transnational thinking and large-scale project funding increasingly demands multinational support. Although roughly half our postdoc cohort and 40% of our graduate students are international, our research enterprise can accomplish much more by ramping up research collaborations and two-way training mobility with targeted institutions in areas that match our strategic priorities.

Inspire: We should make a strong commitment to expand research and innovation experiences for undergraduates, and to showcase achievements of competitive teams such as iGEM and Space Concordia. Not only will this better prepare more students to work in the 21st century knowledge economy, it will also cultivate an appetite to pursue graduate education and expand our pool of qualified talent.

Targets

Double the number of postdocs in two years; funding for graduate students in five years; and undergraduate research apprenticeships (CUSRAs) in three years.

Double major institutional grant applications in two years and success rates within five, while increasing individual grant applications annually.

Double research output in five years as measured by number and/or impact of publications, or prestigious awards linked to cultural/artistic production whether by full-time or part-time faculty, postdocs or graduate students.

Double, in five years, the number of partnering institutions and organizations on research grants, and joint international, or pan-Canadian graduate programs, including *co-tutelles*, linked to research strengths.

Develop, annually from 2017-18 onward, one new transdisciplinary, Institute-based graduate program in and one Course-based undergraduate Research Experience (CRE),¹ and setting a three-year horizon to assess the cost/benefit of cross-listed undergraduate/graduate and thesis/non-thesis courses

Recommendations

1. Incubate and promote transdisciplinary research Institutes and graduate programs in *Digital Arts, New Media and Technology, Aerospace, Life Sciences and Technology, Preventive Health and Wellness, Indigenous Culture and Communities, Sustainability and Urbanization, Chemical and Materials Science and Engineering*
2. Create a *Knowledge Hub* that advances research and creative activity by giving PI's and HQP access to in-house methodological, entrepreneurial and innovation expertise
3. Foster a *Network of Think Tanks* to position Concordia as a convener of multi-stakeholder expertise and co-creator of knowledge

¹ National Academies report on *Integrating Discovery-Based Research into the Undergraduate Curriculum*, 2015

4. Require that all tenure-track hires meaningfully connect to *Double our Research*, allocate 20% of positions to transdisciplinary cluster hiring in priority fields, and develop customized professional development roadmaps for all new hires including research chairs
5. Fund forty-five new postdoc positions in each of the next two years in areas of strategic priority
6. Model best practices in graduate recruitment and admissions, and proactively bundle graduate funding from all internal sources to maximize capture rates for top students in targeted programs and fields
7. Position research and graduate studies at the heart of institutional marketing and fund-raising, and develop greater institutional capacity to support research and graduate studies by: mobilizing non-academic staff to advance research projects in a dedicated way; training teams of qualified graduate students and postdocs as grant and curriculum writers; onboarding new professional expertise to support key areas of the research enterprise; and providing research management and leadership training for PIs
8. Create an internal peer-review process for major institutional grants and mandate that individual researchers who receive seed or bridge funding submit their next external grant application for internal peer review
9. Pilot flexible, multi-year teaching schedules (6 or 9 semester horizons) for high performing researchers, including options to teach short courses at the graduate level, do more team-teaching, link undergraduate teaching to research, and align internal and external service obligations to the research, international and graduate training missions
10. Ensure that the threshold for research and supervision-based course release truly rewards highly productive research and graduate supervision outcomes, and that other incentives—e.g. merit bonuses or accelerator funding—are implemented to incite and reward outstanding, research-related performance

All forward-looking universities face challenges to organize and do 21st century research and graduate studies within risk-averse academic structures rooted in the past. The successful *next generation university* will demonstrate nimbleness, imagination and boldness to advance its research enterprise. There will be an early adopter advantage to doing it now.

Teach for Tomorrow Horizontal Strategy M. Catherine Bolton, VPTL

A Next Generation University

The Question: How do we teach for tomorrow AND double our research?

The Answer: We see teaching and research not as competing priorities, but as complementary priorities.

The Concept: A university where research informs the teaching and curriculum design as a central part of its mission. A university where doubling research also involves doubling research in teaching and learning.

Faculty members have expressed their frustration at the lack of vision concerning teaching at the university and the necessity for changing the culture concerning teaching. While the rewards for research productivity are clear, the rewards for excellence in teaching are less so. Indeed, the impression remains that research and service are supported, but teaching is not. In particular, the inability of professors to carve out sufficient time from their research to invest in their teaching was seen as a major barrier towards improving teaching excellence. How then, can we support our faculty towards teaching excellence?

If we are to stake the claim that we are a next generation university, how do we ensure that our students receive next generation learning experiences in this next generation institution? While some students have learned very effectively in the present lecture-based format, more recent scholarship on teaching and learning at the post-secondary level suggests that this pedagogy is not entirely successful for deep learning¹. With the increasing use of technology, the resultant proliferation of “information,” and the ever faster-changing demands of the workplace, our students are being asked to prepare themselves for professions which may not even exist at the moment they enter university, and which they and the university cannot foresee. Secondary research has shown that one of the best methods for meeting these challenges is to educate students through an active pedagogy, incorporating high impact practices, particularly at the undergraduate level. But how do we actually do this?

We leverage the research on teaching and learning to inform our teaching practice and to facilitate professors’ adoption of varied teaching and learning practices.

This is not an extraordinary or impossible concept. Universities² understand that student success depends on innovative curriculum and teaching practice, but that this cannot be done without research-informed practice. Fundamentally successful academic programs need to be informed by the recent and critical research in teaching and learning, undertaken by researchers who are experts in discipline-based research and learning science research.

¹ http://www.hewlett.org/uploads/documents/Deeper_Learning_Defined_April_2013.pdf,

² For reference, examples can be found from Carnegie Mellon’s Simon Initiative (<http://www.cmu.edu/simon/>), UBC’s Strategic directions (<http://flexible.learning.ubc.ca/>)

This would be a new choice for Concordia: to become a leader in research AND in teaching, effectively, to double the research we do in teaching and learning.

What do we need to do this?

1. A research institute in Next Generation Teaching and Learning
 - i. A Concordia University Research Chair in Teaching and Learning
2. A program of support for curriculum innovation that is clear and pro-active.
 - i. Appropriate curriculum design expertise, through expanded in-house resources and personnel in the Centre for Teaching and Learning and through external contracts.
 - ii. Curriculum design expertise that incorporates methods of incorporating professional skills into curricula, through expanded in-house resources and personnel in the Centre for Teaching and Learning and through external contracts.
3. Informed, research-based learning design support.
 - i. A program of support for faculty members to promote actively student outcomes, experiential learning, community engaged learning, social innovation/entrepreneurial learning, and flexible learning.
4. Reformed management of physical teaching space by adapting, changing and building flexible learning spaces that answer to the pedagogical demands of the curriculum.
 - i. Change the way in which departments control classroom space so that all space can respond first to program needs, teaching needs and student needs.
5. A suite of fully supported pedagogical technologies that support teaching and learning and teaching and learning innovation.
 - i. A digital strategy for technology-enhance, blended and online learning.
 - ii. Develop and promote an evidence-based suite of learning technologies.
6. Provide a range experiential learning opportunities for both undergraduate and graduate
 - i. Develop a strategy to increase co-op opportunities.
 - ii. Develop a clearing-house for additional experiential learning opportunities.
7. Reform the course scheduling system.
 - i. Incorporate a flexible course scheduling system, partially modelled in the non-standard schedule of summer term offerings.
 - ii. Move away from the 3-credit course model and the 13-week semester in curriculum planning.

Hard Targets:

1. Open the Next Generation Teaching Institute with the first CURC in Teaching and Learning

within two years.

2. Double our research in teaching and learning.
3. Double the number of experiential learning opportunities we offer our students.
4. Require new faculty members to participate in workshops/training on teaching and learning prior to tenure.
5. Add one new teaching consultant every year.
6. Add one new flexible, active learning classroom to campus every year.

Short-term Soft Targets:

1. Formulate a university-wide understanding of good teaching which can serve as the foundation for disciplinary definitions;
2. Establish a more informed adjudication process for evaluation of teaching dossier for both full-time and part-time faculty through “good practices” documents;
3. Establish a teaching committee formed principally, but not exclusively, of those faculty members holding ETA positions as a source of experience of university teaching, and innovation in teaching and learning.
4. Create a Certificate in University Teaching for full-time and part-time faculty.
5. Pilot the employment of sabbaticals centred on the development of teaching excellence;
6. Pilot the ETA profile to include formally the responsibility for promoting curriculum development and innovation.

Embrace the City – Draft Strategy

Context

Community engagement is deeply rooted in Concordia's history and DNA. Since the inception of both the Sir George Williams (SGW) and Loyola campuses, staff, students, faculty and alumni have been partnering with the community in innovative ways. Today, the ongoing and ever-evolving legacy of that work can be found throughout the university. As such, the Embrace the City strategy does not seek to start from scratch or to reinvent the wheel. Rather, in the four recommendations outlined below, emphasis is put on identifying what work is already underway, making information about existing opportunities more available, better telling the story of our partnerships and their impact, and putting the support and resources in place to take Concordia's collaborations with the city to the next level.

Before continuing, it is worth acknowledging that the word 'city' means many different things to different people. For the purposes of this strategy, a broad definition is used including everything from the actual municipal government, to public institutions and businesses, to community organizations and individual residents. This strategy recognizes that Concordia can be an increasingly important and indispensable actor in the future of Montreal. Activities under this strategy will no doubt impact individual faculty, students and community-based actors. However, the potential to impact the city as a whole and its citizenry should not be secondary. With its resources and influence, Concordia has the opportunity to involve itself in strategies, projects and activities that make Montreal a better place to live and work.

Guiding principles

The following five guiding principles are considered key to Concordia's efforts to Embrace the City.

Genuine relationships and collaboration

When students, staff and faculty engage with the city through their work, it is important that the relationships they develop are more than transactional. Partnerships are based on mutual trust, respect and an appreciation for each other's strengths. These types of relationships take time to develop and require clear expectations and continual communication in order to endure. For Concordia to approach research and learning as a deeply collaborative exercise, strong and authentic relationships must be at the core of all of our city-engaged work.

Reciprocity and mutual benefit

When Concordians, work in partnership with individuals, groups and institutions outside of the University, it is essential that the outcomes of these efforts be mutually beneficial. City-engaged initiatives should seek not only to incorporate real-world challenges into academic work, but to address public needs and, most importantly, to enhance capacity within the community. At the same time, a great deal of capacity, wisdom and experience already exists within the community and must be acknowledged and given full credit. In reciprocal partnerships, the role of expert and learner, of leader and follower, will continually shift back and forth depending on the context. We acknowledge that there may often be multiple stakeholders involved and that each must be able to articulate the benefits they will derive from participation in addition to the overall project objectives. Ultimately, this means that Concordia must be willing and ready to change, in some ways, with every partnership. Working in solidarity with others, this is not only an exchange of expertise and meeting of needs but also a mutual transformation into something better.

Inclusivity and responsiveness

Concordia's efforts to embrace the city must be as explicitly inclusive and accessible as possible. This includes everything from making sure our physical resources are more readily available to community groups, to making sure that information about city-engaged initiatives is easy to find, and everything in between. Embracing the city means opening our doors to the diversity of people and institutions that make up Montreal, seeking out who is not at the table, ensuring our partners feel welcome and valued in our projects and collaborations and being responsive to their needs and ideas. In embracing this diversity, it is important to recognize that there is no one-size fits all approach to working with the city. To be a resilient agent of change, Concordia's city-engaged work will have to take on a multitude of forms on many different scales.

Support, recognition and leadership

An array of innovative city-engaged initiatives are already underway at Concordia and have blossomed thanks to the hard work and commitment of staff, students, faculty, alumni and their community partners. If Concordia wants to take these efforts to the next level, there is a need for concrete support, institutionalized recognition and strong leadership. The Embrace the City ethos must pervade the university in every way – from funding opportunities, to promotion criteria, to recruitment materials – in order to ensure that impact-oriented city-engaged work can truly thrive. At the same time, the guidance, mentoring, and support developed to encourage this type of work, must not be directive or proscriptive. This dance between structure and emergence is important as we expand our acceptance of new theories, innovative pedagogies and multiple research methodologies.

Sustainability

Looking towards the future, there are many major challenges and opportunities facing our world, arguably the most significant of which is climate change. Concordia has already established itself as a leader in the field of social, economic and environmental sustainability and this expertise should guide and be incorporated into its city-engaged work whenever appropriate.

Recommendations

Mapping our impact

From long-standing research partnerships with local institutions, to annual fundraisers for local non-profits, to student-run projects with local social-entrepreneurs, it is clear that Concordians take pride in the work they do in and with the city and its constituents. However, with so many city-engaged initiatives underway, it can be hard to see the whole picture. This makes it challenging to effectively share stories about this work, but, more significantly, it makes it hard for newcomers to Concordia – be they first-year students, new hires or curious neighbours – to access information about these projects and how they might get involved.

To overcome the barriers preventing effective information sharing and storytelling, it is proposed that we build a map. This map will show us where and how Concordians are currently embracing the city, as well as where we currently are not. It will show us who is partnering with whom and how they are working together to make a difference. Mapping partnerships and relationships will inspire new connections and clarify pathways for individuals and groups wishing to get involved in the initiatives that are already underway. This visual representation will enable us to identify gaps as well as opportunities for synergy and strategic investment and involvement. Finally, the map will lay the groundwork to

meaningfully evaluate our collective impact and to follow-up with our partners after a project comes to a close.

In terms of form, Concordia's Embrace the City map will live primarily in the digital realm, with physical copies only being produced for specific space or event-based needs. The interface for data input will be user-friendly in order to ensure that multiple stakeholders can add and update information about their initiatives in a timely way. Built with multimedia content and equipped with searchable tags and filters, the map will be more of an interactive atlas, allowing each person to view the content that most interests them. The design of this mapping tool will be informed by the vast knowledge and creativity of Concordia's faculty and students with particular attention paid to the needs of end-users, which include future and existing students, new and existing community partners, staff, faculty and alumni.

Identifying city-engaged learning opportunities

The call to 'Embrace the City' in Concordia's Strategic Directions is closely linked to the call to 'Get Your Hands Dirty', which commits to deepening our capacity to support experiential learning as an important component of a holistic education. Already many courses and opportunities exist that approach learning as a collaborative exercise and a pathway for engagement and difference making.

To make sure that information about these city-engaged learning opportunities is available and accessible to the greatest number of students, it is proposed that an identification system be created to denote courses that have a city component ('C' Courses). Acknowledging that community engaged pedagogy exists on a spectrum that ranges from a single assignment with a city focus to an immersive semester long experience, a tiered "hot-pepper" identification system is recommended.

The work of identifying these courses is already underway through the Living Knowledge research project initiated by Concordia's Community Engagement Sub-Committee. The results published in the project's final report will be combined with a web-based self-identification tool for professors. The information will then be made available in a searchable format online and in future editions of the course calendar.

Beyond facilitating awareness of and enrollment in city-engaged courses, the act of labelling these courses will have several added benefits. It will give a clear sense of what courses are available and where they are located so as to ensure that there is a good mixture of opportunities across all departments. It will enable the establishment of incentives to both encourage faculty to offer these types of courses and motivate students to take them. In addition, it will inform the design and creation of targeted resources to support the development of new city-engaged courses. Finally, this exercise will provide useful information to communicate with future and existing students, donors and the potential employers of our alumni.

Designing a collaborative city-oriented space

A big part of the work involved in embracing the city will be centered on relationship building and testing out ideas. As an urban University in a densely populated city, Concordia is ideally situated to connect with the people, groups and organizations that surround its campuses. To catalyze this potential it is proposed that a city-oriented space be created with the goal of fostering widespread, interdisciplinary, collaborative work with new and existing partners.

Located on the main floor of the Library Building, the Embrace the City space will be a store-front portal bridging the community and university worlds. It will serve as a one-stop hub and easy-to-find resource centre for community members seeking information and partnership opportunities and will be an accessible space on campus where Concordians can connect with each other and their partners.

Both the design and the use of the Embrace the City space must be flexible and adaptable and will continue to evolve as changing needs become articulated. The design and furnishings will be easily reconfigurable and will strike a balance between the availability of both high-tech and low-tech options. The space should have a welcoming, non-corporate, human-sized feel with a functionality that can be compared to that of a public living room: a place where people can meet, greet, eat, work, think and play together.

In order to demonstrate openness to the city and foster a sense of belonging at Concordia, the space will need to be staffed by facilitators who are skilled in the art of welcoming people, of communicating diverse information to a diversity of people, of fostering connections, hosting conversations and encouraging action. The staff will be the interface between the university and the city and will answer questions, manage logistics and coordinate regular programming and exhibitions to draw people in and cultivate relationships. Special effort will be placed, particularly in the early months, on getting stakeholders into the space so as to initiate partnerships, ideas and opportunities for connection. What is most important is to open the doors and invite people in to create, research and disseminate ideas, to think, work and play together, to develop genuine relationships and to engage in the sometimes messy work of collaborating on real-world projects.

[Supporting transformative partnerships for the future](#)

If serious commitment and grounded efforts are in place, the Embrace the City strategy has the potential to drive many of the other nine strategic directions (Teach for Tomorrow, Double our Research, Get Your Hands Dirty, Take Pride). One of the first steps would be to scan what is already happening in the city and how other universities are engaged in these projects with the ultimate goal of learning from others and working alongside them. While the bulk of the Embrace the City strategy focuses on acknowledging, supporting and celebrating all of the exciting initiatives that are already underway at Concordia, taking pride in this work and better telling the story; this is also an opportunity to move beyond our current efforts and create transformative partnerships for the future.

It is proposed that Concordia reinforce its efforts to embrace the city by appropriately resourcing an institution-wide Embrace the City/Community Engagement unit. More than a committee, this cross-institutional unit would be tasked with mapping existing initiatives, promoting stories of impact, creating a public archive of city-engaged research and projects, developing resources and programming, stewarding funding opportunities, incentivizing and celebrating achievements, connecting stakeholders and building relationships.

Staff reporting into this unit will have the ability to facilitate the long-term, boundary-spanning relationships that are needed to cultivate meaningful partnerships and genuine collaboration. They will dedicate their time to connecting the resources and expertise of the university with the rich knowledge and real-world experiences of our city partners. In addition, by de-mystifying how the city works at all levels, how decisions are made and what projects are underway, this unit will enable Concordians to get involved, influence policy, and co-design strategies to address the major challenges of our time. Finally,

by demonstrating the University's commitment to embracing the city, Concordia will be better positioned to recruit students and faculty with a commitment to city-engaged research and learning, which will further propel this work into the future.

Proposed objectives

1. Design and populate an interactive online map of Concordia's city-engaged initiatives
 - Equip with a user-friendly interface making it easy for multiple stakeholders to update
 - Include searchable tags and multiple filters, which will allow each user to see the types of initiatives that most interest them
2. Identify existing city-engaged courses and make information about these opportunities more available and accessible to students
 - Use a tiered "hot-pepper" identification system to identify the spectrum of city-engage courses within Concordia's curriculum
 - Display information in the course calendar and make it available and searchable online
 - Initiate discussions about incentives for the continued growth of city-engaged courses
3. Design and open a street-level space to bridge the community and university worlds
 - Ensure a flexible and re-configurable set-up to allow for multiple users and uses
 - Foster a welcoming, living-room-like vibe to create an environment where people can meet, greet, eat, work, think and play together
 - Staff the space appropriately
4. Appropriately resource a cross-institutional Embrace the City/Community Engagement unit
 - Task with mapping existing initiatives, promoting stories of impact, creating a public archive of city-engaged research and projects, developing resources and programming, stewarding funding opportunities, incentivizing and celebrating achievements, connecting stakeholders and building relationships.

DRAFT – Embracing the World

Vision

Bold and vibrant, Concordia University will establish transformative alliances to inspire innovation and contribute to solving global challenges.

Our campuses will be a welcoming place for best ideas and creativity, and our community's positive contribution will radiate out from Montreal into the world beyond.

Dynamic Strategy

“Embracing the World” aims to leverage Concordia’s strengths, through maximizing efforts of our outstanding faculty, expanding opportunities for students, and establishing and further strengthening productive partnerships.

This is a dynamic document; that is, these words are not cast in stone. It is meant to be a blueprint for action and a magnifier for the other eight strategies. We expect that it will evolve as the implementation process unfolds.

Top Four Goals

1- Concordia will demonstrate global leadership in key research areas

Priority areas will be identified and aligned with the Strategic Research Plan. Each priority area will build structural partnerships with key institutions known for their prominence in the relevant field. These strategic partnerships will increase Concordia’s visibility in these fields, demonstrating leadership and suggesting solutions to global challenges.

2- Concordia will establish quality academic environment that fosters mobility of individuals and sharing of creative ideas

As the world becomes increasingly interconnected and interdependent, it is imperative to establish flexible academic structures and programs that support the growing movement of people and creative ideas.

3- Concordia will strike next generation initiatives to capture global opportunities and generate new revenues

While personal contact will remain an essential element in establishing and sustaining international linkages, as a next generation university, Concordia will harness technology to engage existing and potential partners, students and alumni.

Our initiatives will open doors for new opportunities and help generate revenues from new sources to better advance our development and support our community.

4- Concordia will broaden its outreach globally for greater impact and visibility

Concordia holds the distinction of being committed to community outreach and success. Our faculty, students and staff contribute daily to the making of Montreal's future. While our local engagement remains an important force, it will be critical during the coming years to define Concordia's community as borderless, open to international partners and active in developing world projects.

Transformative Actions

- 1- Establish inclusive global networks in key research areas
- 2- Advance the establishment of a North American Erasmus program promoting mobility among institutions and private sector in the area
- 3- Franchise innovative structures such as District3 and the wet lab incubator
- 4- Explore the feasibility of creating a Concordia Inc. / Foundation in Europe to open the door for EU funding that is restricted to European organizations
- 5- Get our researchers involved actively in projects in developing world (i.e. development banks projects)
- 6- Advanced use of smart technologies to connect our community internationally and attract international students (i.e. future tellers' apps).

Anticipated Outcomes

- 1-** Greater global visibility for our research strengths
- 2-** Higher number of community members involved in international programs and projects
- 3-** New income sources
- 4-** Global reputation of being a place for best ideas and creativity.

Grow Smartly – FINAL DRAFT - V7.0

February 16, 2016

Introduction – the grow smartly challenge

The student population at Concordia has grown by about 30% over the past ten years, and has almost doubled since 1990. To accommodate this growth, Concordia has expanded its footprint, facilities, systems and workforce. This kind of substantial growth is a trend reflected across Canada, with provincial governments focusing their postsecondary policies and financial models towards widening access to higher education.

We now face a context in which there's a demographic dip in university-age students in Quebec, increased competitiveness across Canada for out-of-province students, and looming shifts of supply and demand in international enrolments. Universities are also facing tremendous pressures to change and evolve from a variety of sources including increased public accountability, disruptive technologies, and students' and parents' expectations around the employability of graduates.

The plan for Concordia, for both academic and financial reasons, is one of moderate, controlled annual growth.

Guiding principles

The following principles help to ensure that our growth is driven by our shared commitments and strategic priorities, not by circumstances.

Put the student experience and student success first

This is the very *raison d'être* for our academic programs. Prioritizing student success means focusing not just on the fulfillment of academic requirements, but also students' holistic development and readiness to thrive after graduation.

Be intentional and strategic

Avoiding a 'growth where we can get it' approach to enrolments means getting clear for ourselves where we have the capacity, strategic interest, faculty expertise, and student demand to expand. This requires developing an integrated vision and plan, and targeting our recruitment efforts accordingly.

Align resources

Growing enrolments can mean an increased need for instructors, teaching assistants, support staff, space, equipment, student services, support for experiential learning, housing options, etc. Growth and resources need to go hand in hand.

Keep an eye on the money

Student enrolment is the financial lifeblood of the university, so financial sustainability is a fundamental tenet of enrolment planning and growth.

Recognize the strength of a federation

We are committed to a wide array of programs, not all of which will at all times cover their full expenses as over time there are natural variations in attraction power, costs, and government weightings. It is understood that programs are not sovereign states, but part of a federation that operates as a whole and benefits from the boundary-crossing synergies and collaborations.

Maximize our attractiveness

Generating demand for our programs requires us to continually improve, strategically position, and occasionally rethink our offerings. Compelling programs are our primary recruitment tools, and we greatly reduce our room to maneuver, and diminish our reputation, if we neglect them.

Seize the day

When big opportunities arise and the conditions are ripe, we need to be ready to launch new offerings. New programs in strategic areas are key to growth.

See from the student’s view

Seeing our program offerings from the student perspective encourages us think flexibly about scheduling, format, and teaching methods, opening up possibilities for new pathways, interdisciplinarity and opportunities for learning.

Mindsets

The world is changing fast and what worked for universities yesterday will not necessarily work tomorrow. Being prepared to thrive in a new environment requires us to be nimble and experimental, but as the fiscal environment remains tight, we will need to free funds within our own operations to reinvest into our future. We will do this by finding ways to:

<p>CHOOSE AND DIFFERENTIATE Nobody can be great at everything. What are we going to be truly great at? Are we prepared to make difficult choices? Differentiation will be key in the 21st century.</p>	<p>STREAMLINE AND TRANSFORM In the absence of new monies, Universities will need to reshape, streamline, reinvent and transform many aspects of their activities.</p>
<p>PARTNER AND DIVERSIFY Universities are no longer islands. The right partnerships in research, pedagogy and other activities will make the difference.</p>	<p>BRAND AND MARKET Canadian Universities lag behind their US counterparts in the way they present themselves. Are we ready for competition on the global market?</p>

High-level goals and objectives (5 to 10 year window)

Grow to 50,000 students (headcount)

Grow to 30,000 full-time equivalent students

Raise graduate student proportion to 20% (focusing on research-oriented students)

Raise the international student proportion to 20%

Raise the graduation rate (undergraduate) to 80%

Double the number of online courses

Double the number of experiential learning opportunities

Double the financial support for graduate students

Launch one new ambitious program per year

Launch one new ambitious research unit per year

Methods and Strategies for achieving smart growth

Review, update and streamline current curricula

Program offerings grow organically over time, and we now have in excess of 500 programs. Are all these programs optimal? Relevant? In demand? For academic and financial reasons, a review of programs will ensure continued success and growth.

Develop a full enrolment management strategy

Our recruitment strategy, locally, nationally and internationally, is quite robust and applications increase yearly. However, there is at this time no coordinated plan to shape the size and composition of our various programs over time. This is our next step in terms of recruitment and admissions.

Expand and refine our student success and retention strategy

The establishment of the Student Success Center was the beginning, not the end, of this strategy. The Center needs to be at the nexus of a comprehensive strategy that supports our students from recruitment to graduation and beyond

Test alternative, flexible course/programs formats and pathways

This is important for attracting particular student segments we're targeting. In addition to increased interdisciplinarity, might entail specialized pathways for, e.g., students with extended credit requirements and adult and returning learners, or it could involve formats like low-residency offerings, block format scheduling, combined BA/MA degrees, etc.

Launch version 2.0 of eConcordia

The original eConcordia was a visionary endeavour that put Concordia ahead of the game in digital learning. It is time to reinvest in our online learning capacity, in

terms of infrastructure (learning management system), support from course design specialists, and course offerings. We must also move from an ad hoc course-based approach to online learning development to a program-based strategy that meets the learning needs of different student segments.

Optimize our space usage

Though online courses will increase, we will continue to need appropriate physical spaces for our courses, labs, and studios. And we need more of our spaces to suit the kinds of active learning that we want to engage our students in. Our space utilization rates signal that we have the capacity to absorb increased enrolments if we change the ways we manage this space.

Expand and market revenue-generating non-credit programs

In the spirit of diversification and mission expansion, Concordia is today well positioned to multiply its activities in continuing education (CCE), online education and training (K1), and executive education (JMEC). New leadership and reinvestments have begun in all three areas, and it is expected that activities and revenues will increase over time, possibly by as much as a factor of 10.

Expand our branding into a fully developed marketing strategy

Our market analytics need to be refined, and this data will help to shape our branding and marketing both at the program level and at the institutional level.

Build on our sustainability policy to flesh out a sustainability strategy

In the modern world, under pressures of climate change, overpopulation, social inequalities and other global threats, a university of our size and impact cannot operate without a fully fleshed out sustainability strategy.

Potential avenues for growth from new program offerings

The list below identifies program areas, in no particular order, that are in the process of being explored and prioritized by Faculties, or that have been proposed or discussed as possible growth areas over a 5 to 10 year horizon. They are in various degrees of discussion, approval and development. As we add new programs to our current offerings, alignment with the Double our Research strategy will be key to success.

Chemical and materials engineering

Our fast-growing Engineering and Computer Science Faculty has identified this key field as a major growth area. This is an ambitious endeavor that will require substantial investment.

Architecture and design

Concordia has many key elements already in place (e.g. design, building engineering, urban planning etc.) to take a niche position in this field, for example around a

carefully selected focus on urban design, resilient and sustainable buildings and cities, etc.

Health

Half of the research funding in Canada goes to the health sector, and we receive only a sliver of this pie. Building on PERFORM and strong existing programs in related areas, we might consider launching programs in areas where we have research strengths such as biomedical engineering, biomedical science, public health, aging, food security, nanotechnology and others.

Business

In addition to revitalizing the MBA, JMSB, building on its strong brand, is well positioned to consider program possibilities in areas like sports marketing, creative enterprises, global insurances, international trade, aviation and others.

Sustainability

This is a big and crucial theme for Concordia with lots of grassroots activity and an increasingly visible presence in Montreal and nationally (as seen in the recent Sommet Montréal de l'innovation). But program offerings are meagre and research efforts relatively uncoordinated. There is a great opportunity here to pursue some unique specializations.

Game studies/design (focused on 3D/VR games and movies)

Building on expertise in computer science and in TAG, and expanding a growing relationship with Ubisoft and other industry partners, game studies and design could expand into a significant program fully in line with our image and strengths in the arts, technologies and creative industries.

Big data/analytics

This growing field touches a wide array of fields in computing, engineering, sciences, health, and business. We have expertise that could be regrouped and expanded, and we are also already part of a working group with Ryerson, Dalhousie and others on the skills gap in this field in Canada.

Information security

This is a growth field worldwide, and we already have considerable expertise in the Faculty of Engineering and Computer Science. Classic cybersecurity is evolving and branching out and we need to evolve with it into the internet of things and physical IT security.

First peoples

So many individual pieces are already in place in this area, including a major, several research endeavors and a support system for students. With the right leadership and resources this could become a vibrant and very visible area for research, scholarship, and community outreach.

Law and Society

It would be worthwhile to seriously evaluate the possibility of adding another prestigious professional Faculty such as law. This could be a transformative step in terms of Concordia's impact and image. While all of the program possibilities identified here are long-term projects, a Law Faculty would be on the far end of our current planning horizon.

Conclusion

Even when taking into account the decreasing local demographics and increased international competition, Concordia is in a good position to sustain moderate growth over the next decade. Key aspects of this success involve reviewing both the 'what' and the 'how' of our curriculum, introducing ambitious new programs, further increasing student success, and distinguishing ourselves with differentiated branding and marketing.