



VISION 2015: Building on Excellence EFC Information Session

**WATERLOO
ENGINEERING**

engineering.uwaterloo.ca

March 20, 2012
Dean Adel Sedra

overview

- aspiration & key priorities
- planning process
- draft plan highlights
- questions & feedback

aspiration

Waterloo Engineering aspires to be a **truly world-class school of engineering.**

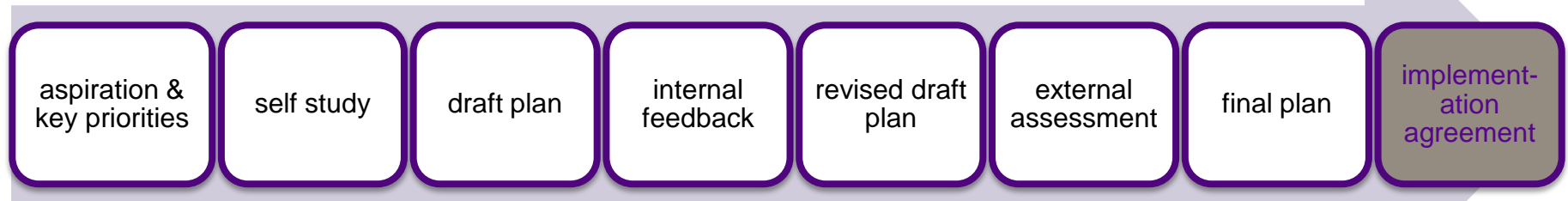
The programs we offer, the students we graduate, and the solutions we develop will be sought after by outstanding students, employers, employees and partners.

key priorities

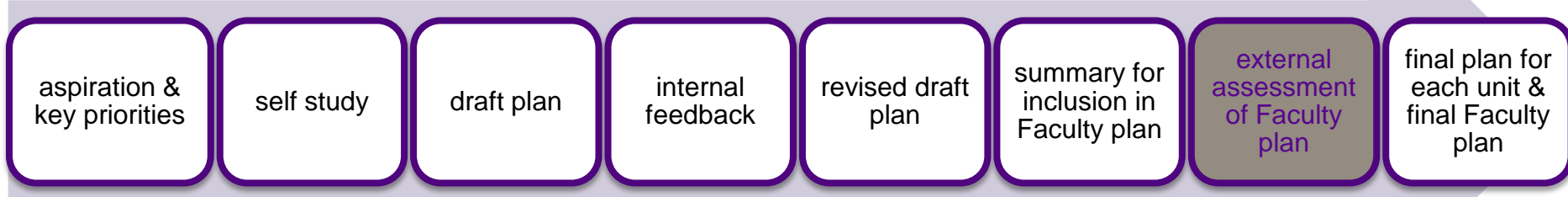
- Attracting, engaging and retaining outstanding **people**: undergraduate students, graduate students, faculty & staff
- Committing to excellence in academic **programs & services**
- Undertaking high-impact **research**, both within and across the disciplines and spanning the theoretical to the practical
- Building **connections** and promoting **collaboration**
- Fostering **innovation & entrepreneurship**
- Providing the world-class **facilities** required to support excellence in education & research

planning process

academic units

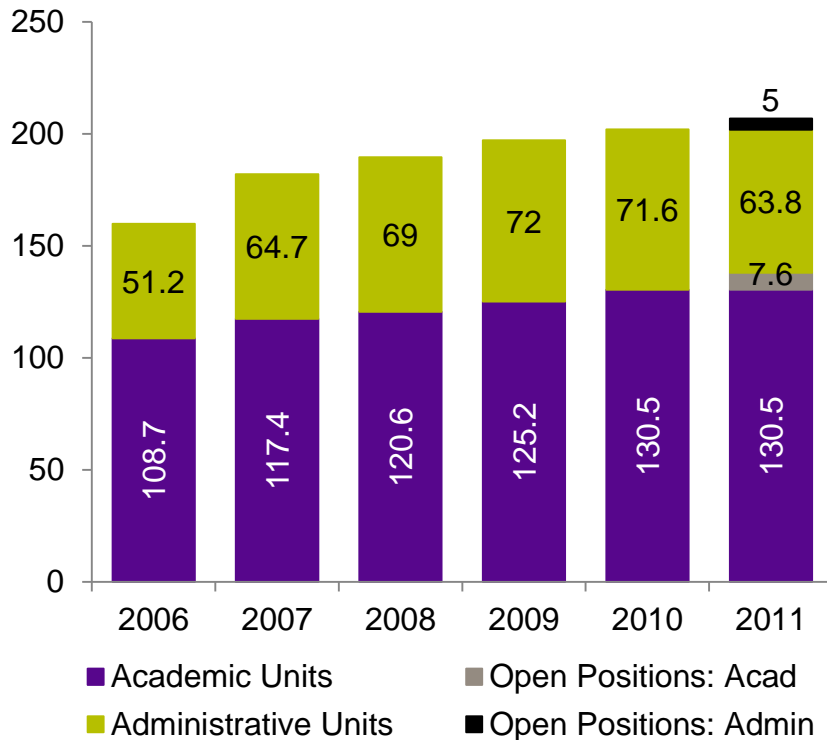


administrative units

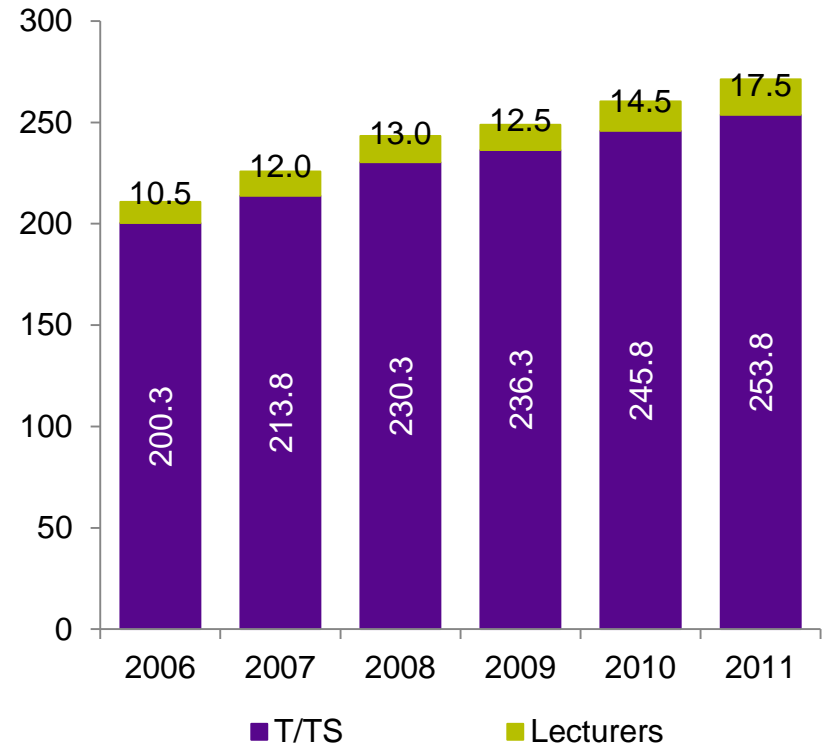


faculty & staff data

Growth in FTE Staff Over Time

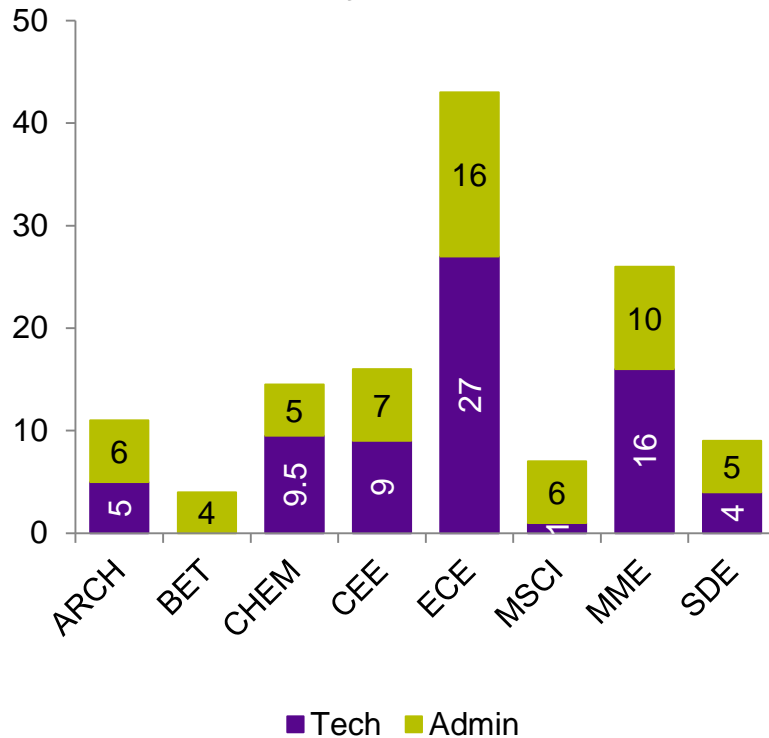


Growth in Regular Faculty Over Time

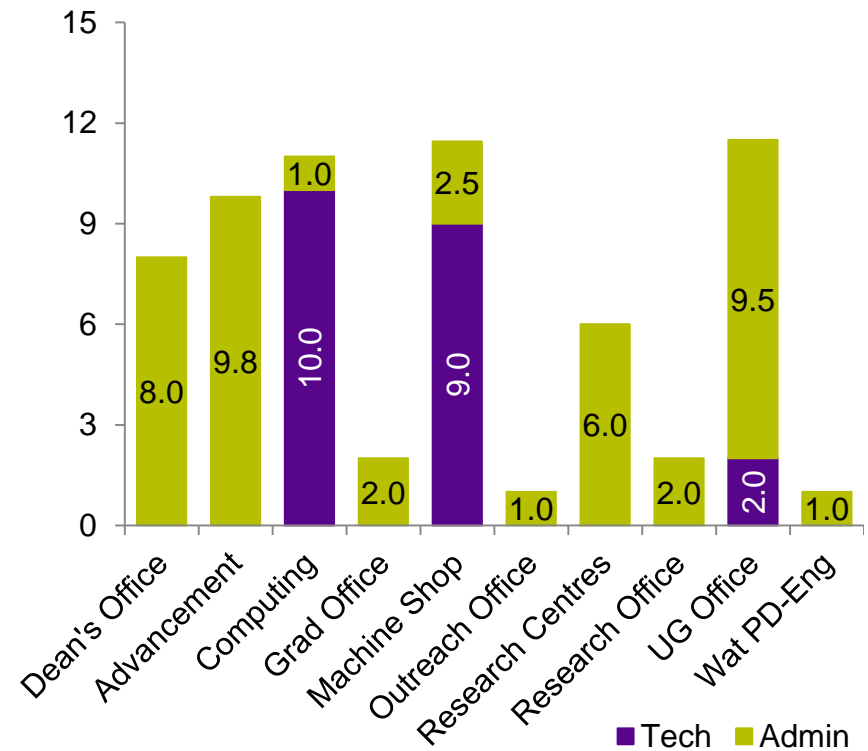


faculty & staff data

FTE Staff in Academic Units,
May 1, 2011

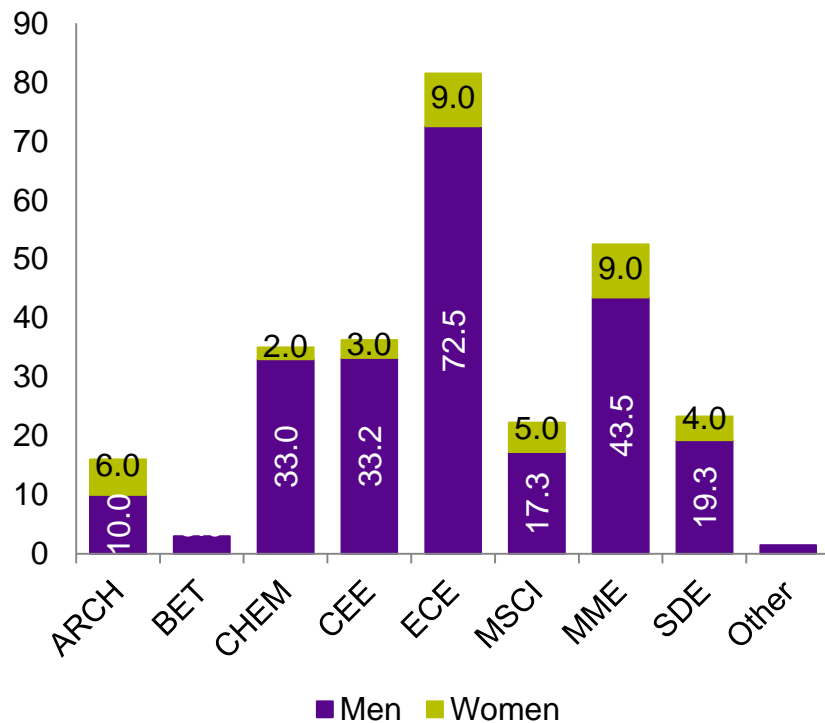


FTE Staff in Administrative Units,
May 1, 2011

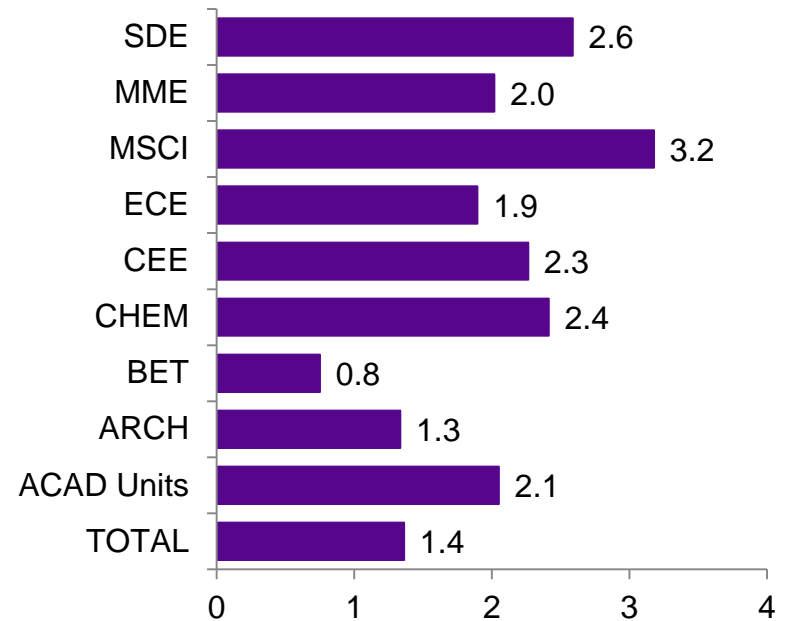


faculty & staff data

Regular Faculty, May 1, 2011

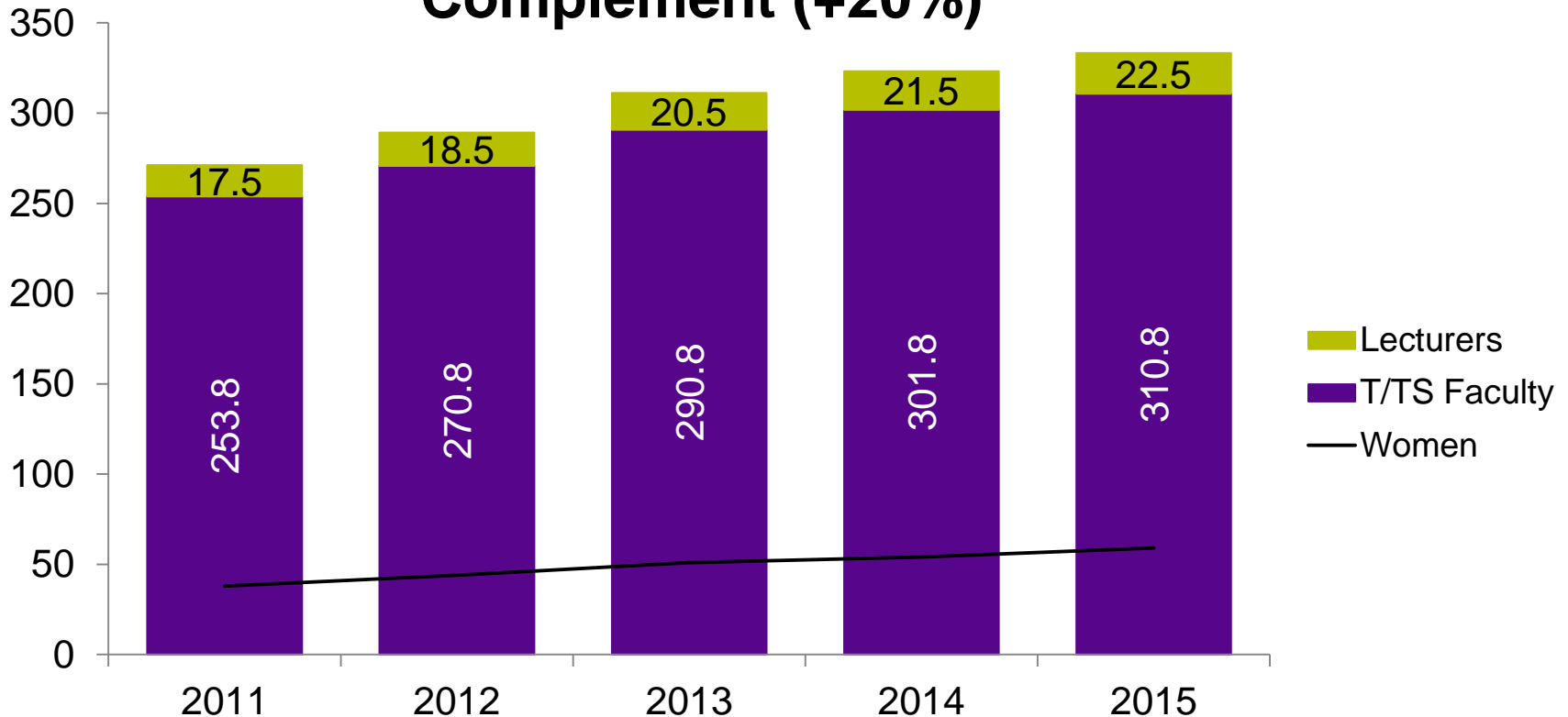


Faculty to Staff Ratio, May 1, 2011



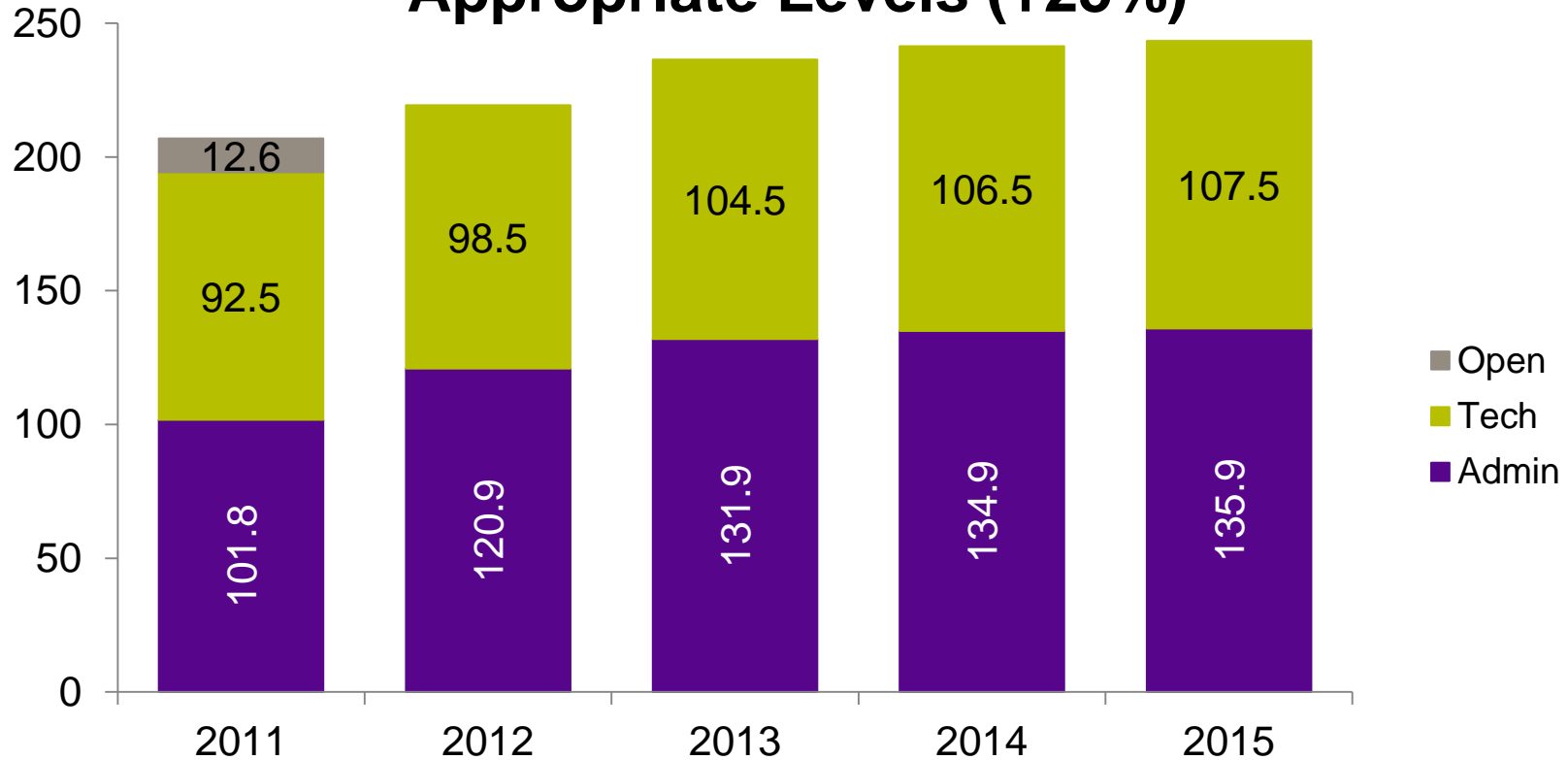
faculty targets

Strategically Increase the Faculty Complement (+20%)



staff targets

Increase the Staff Complement to Appropriate Levels (+25%)

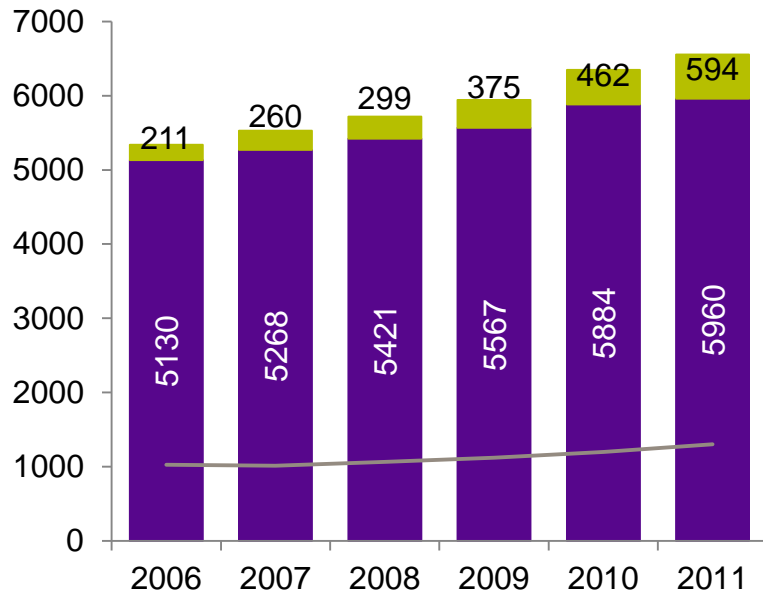


faculty & staff objectives

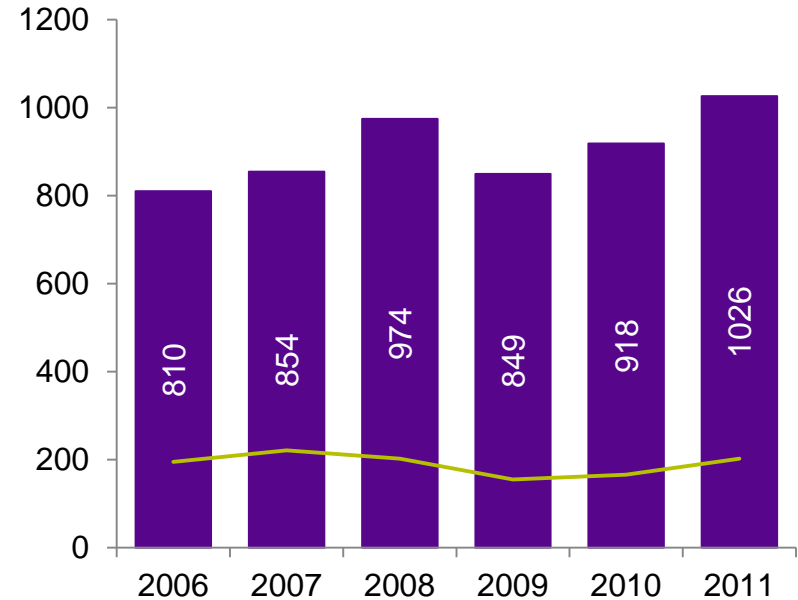
- Recognize and promote faculty and staff excellence
- Improve internal communications
- Support the career-long development of faculty and staff
- Fully engage all faculty members
- Establish a culture of service excellence

undergraduate studies data

Undergraduate Enrolment Over Time



Undergraduate Degrees Granted Over Time

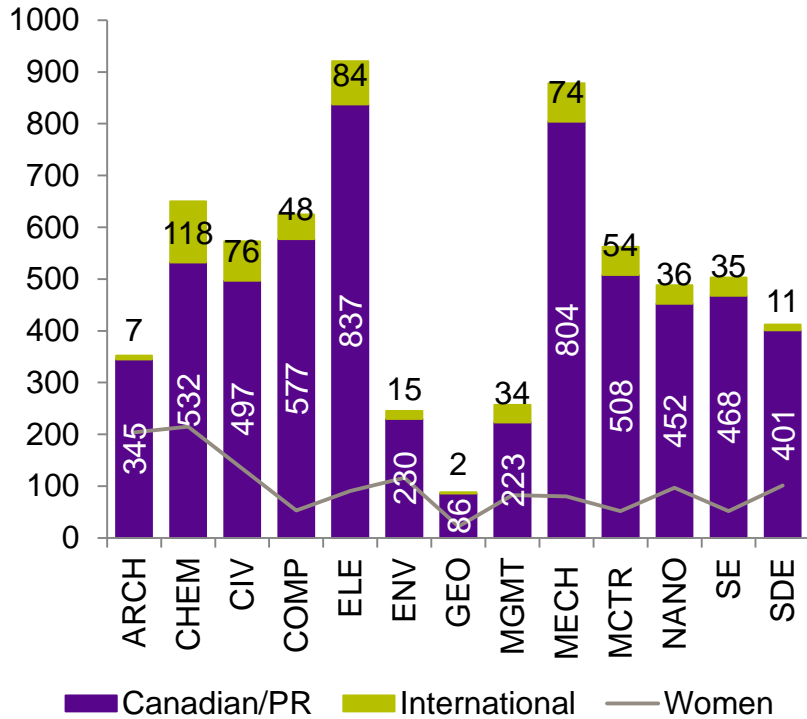


Canadian/PR International Women

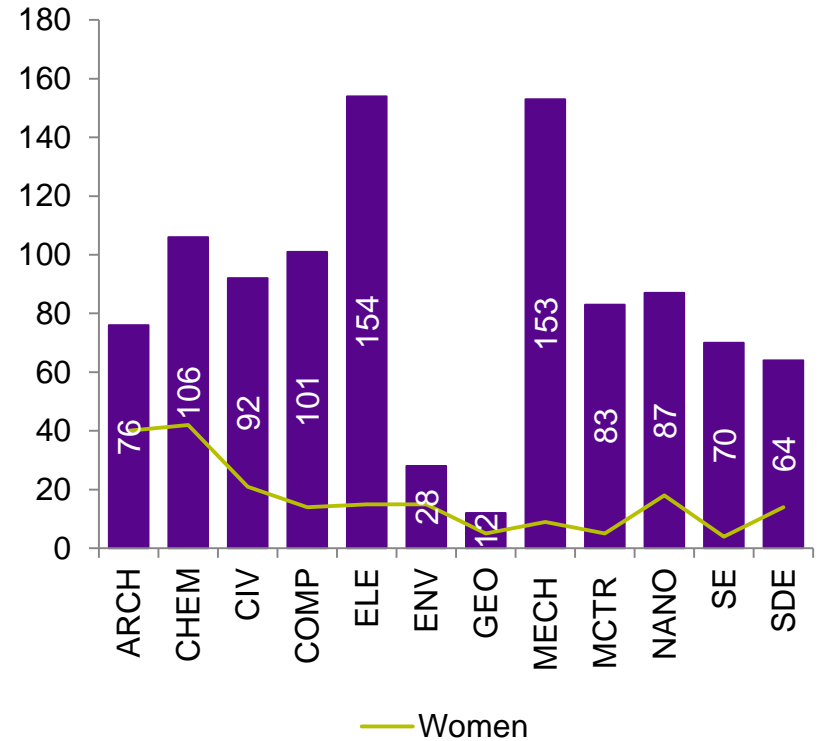
Women

undergraduate studies data

Undergraduate Enrolment, Fall 2011

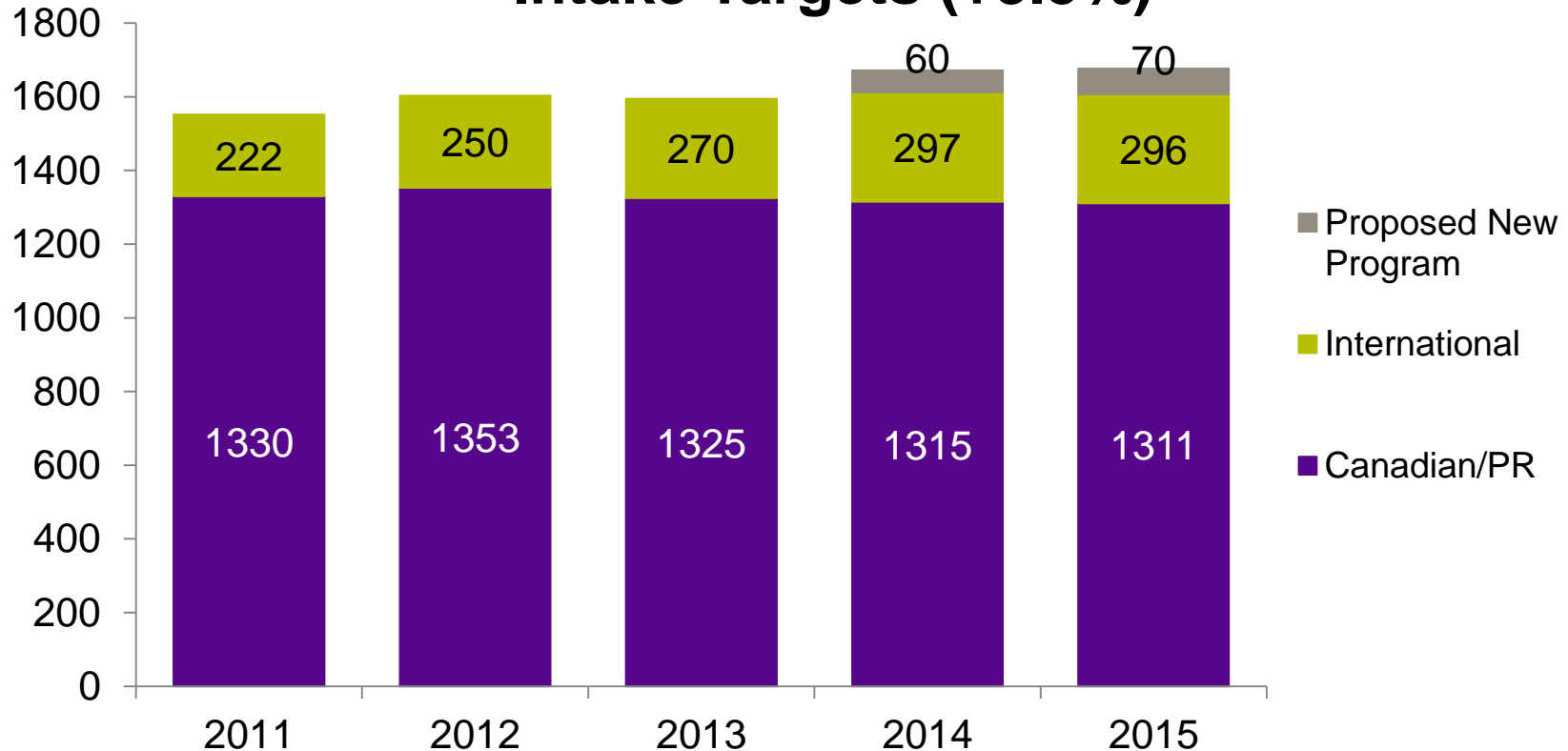


Undergraduate Degrees Granted, 2011



undergraduate studies intake targets

Maintain Relatively Stable Undergraduate Intake Targets (+3.5%)



undergraduate studies objectives

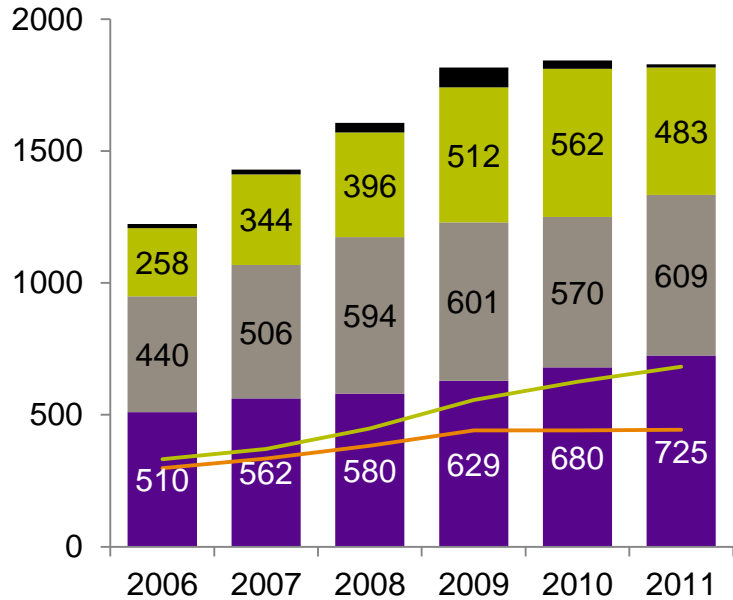
- Enhance the UG academic program
 - Improve lab equipment and experience
 - Pilot a clinic model in MME
- Support the retention of UG students
- Improve the UG student experience
 - Improve service and communications
 - Introduce an annual engagement survey

undergraduate studies objectives: co-op & accreditation

- Increase the number of co-op jobs
 - Add 2-term jobs (junior) & 8-month terms (senior)
- Provide unemployed first work term students a meaningful experience
- Support the implementation of WatPD-Engineering
- Ensure the ongoing accreditation of all programs
 - Invest in the implementation of a system of outcomes assessment

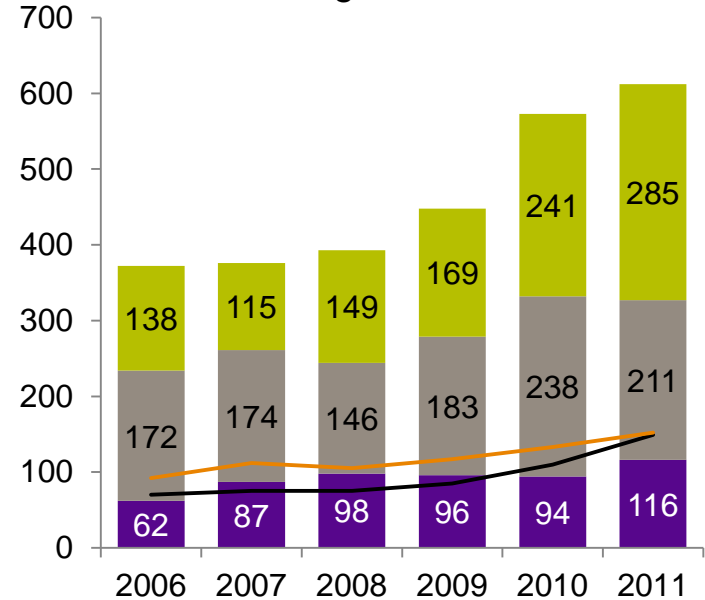
graduate studies data

Graduate Enrolment Over Time



- PhD
- Research Master
- Professional Master
- Non-degree
- Women
- International

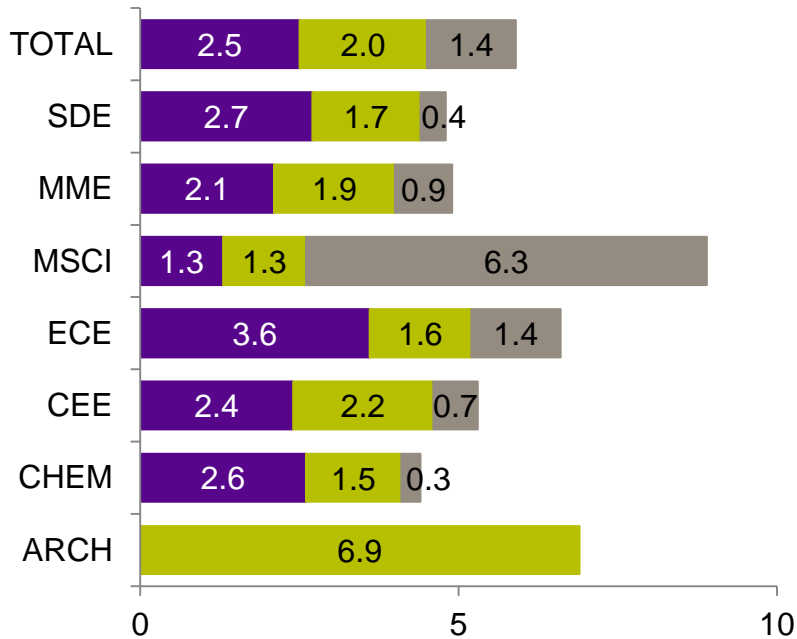
Graduate Degrees Granted Over Time



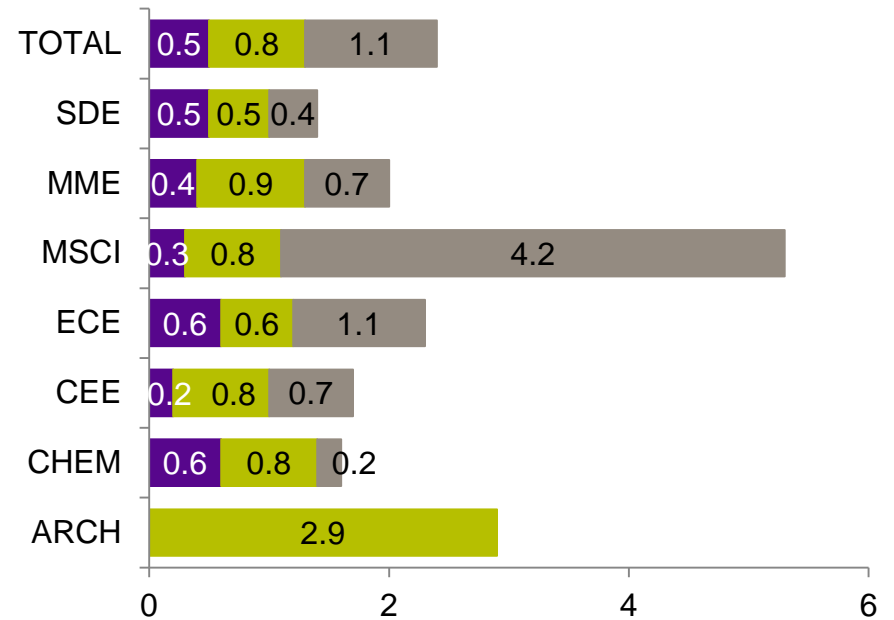
- PhD
- Research Master
- Professional Master
- International
- Women

graduate studies data

Graduate Enrolment/TTS Faculty, 2011



Graduate Degrees Granted/TTS Faculty, 2011

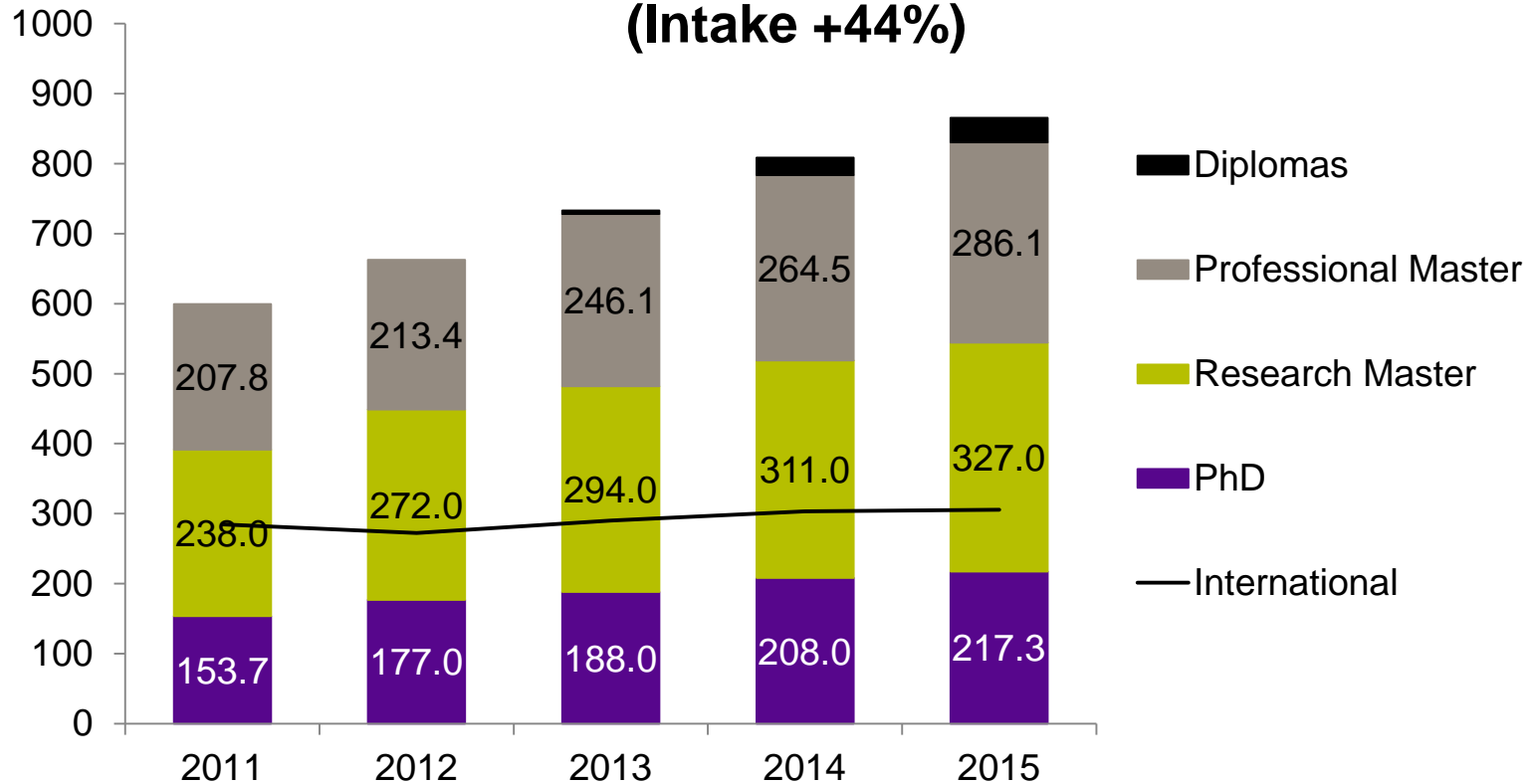


■ PhD ■ Research Master ■ Professional Master

■ PhD ■ Research Master ■ Professional Master

graduate studies intake targets

Strategically Increase Graduate Enrolment (Intake +44%)

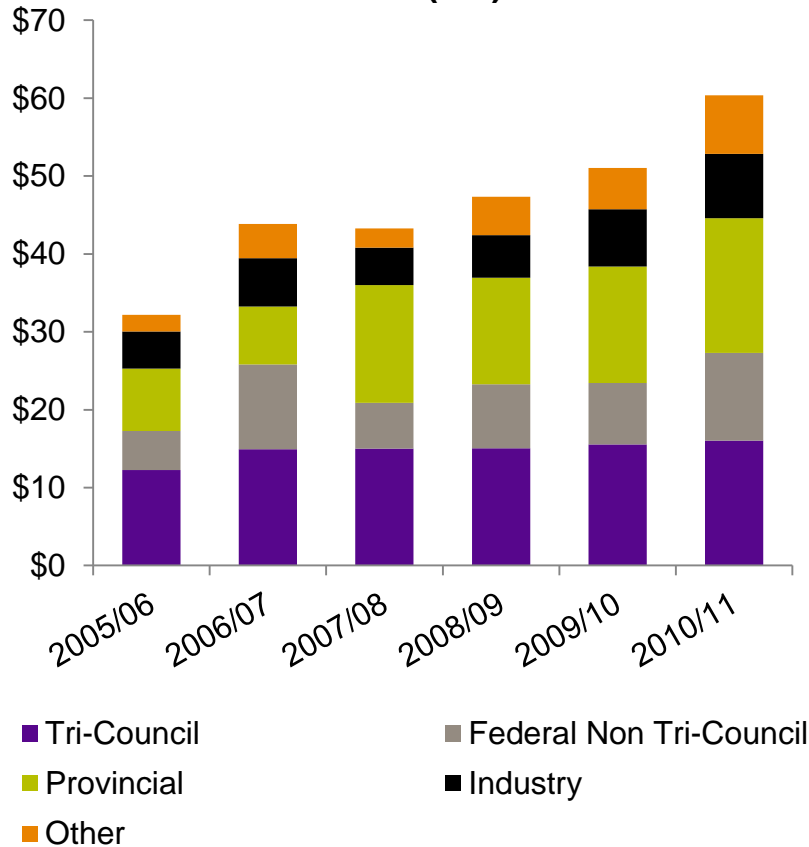


graduate studies objectives

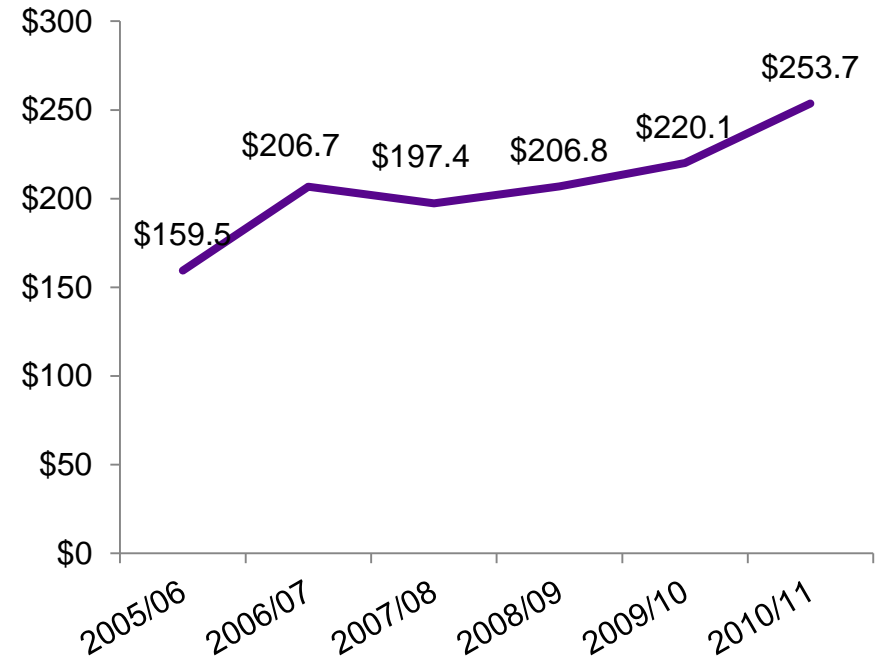
- Strategically increase graduate enrolment
 - Introduce new programs and invest in recruitment
- Improve the graduate program
 - Foster consistently high quality supervision
 - Improve course offerings and academic rigour
- Improve graduate operations and service
- Enhance the graduate student experience
 - Conduct a comparative study of funding
 - Establish a faculty-wide graduate student association

research data

Research Funds (\$M) Over Time

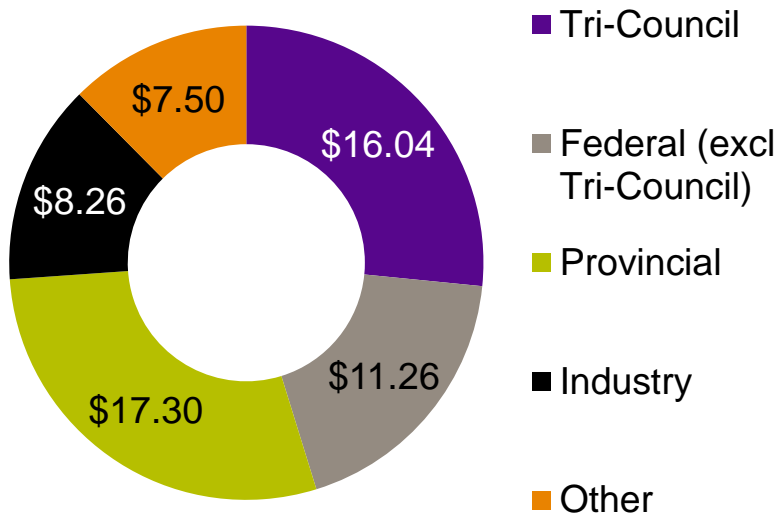


Funding per T/TS Faculty(\$K) Over Time

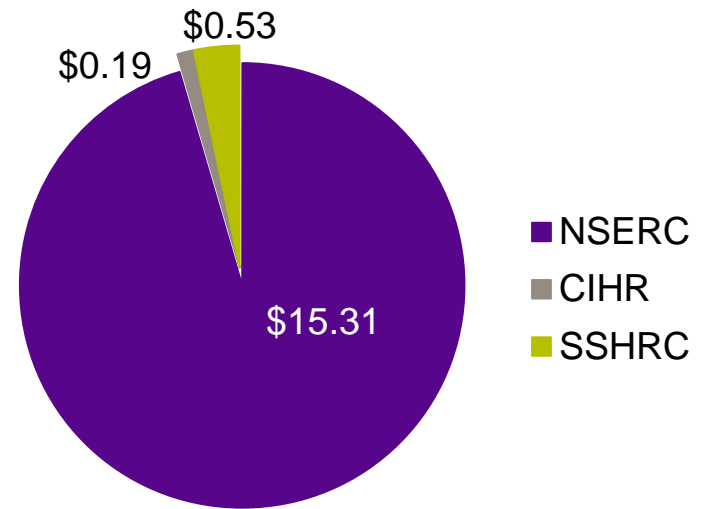


research data

Research Funds by Sector
(\$M), 2010/11

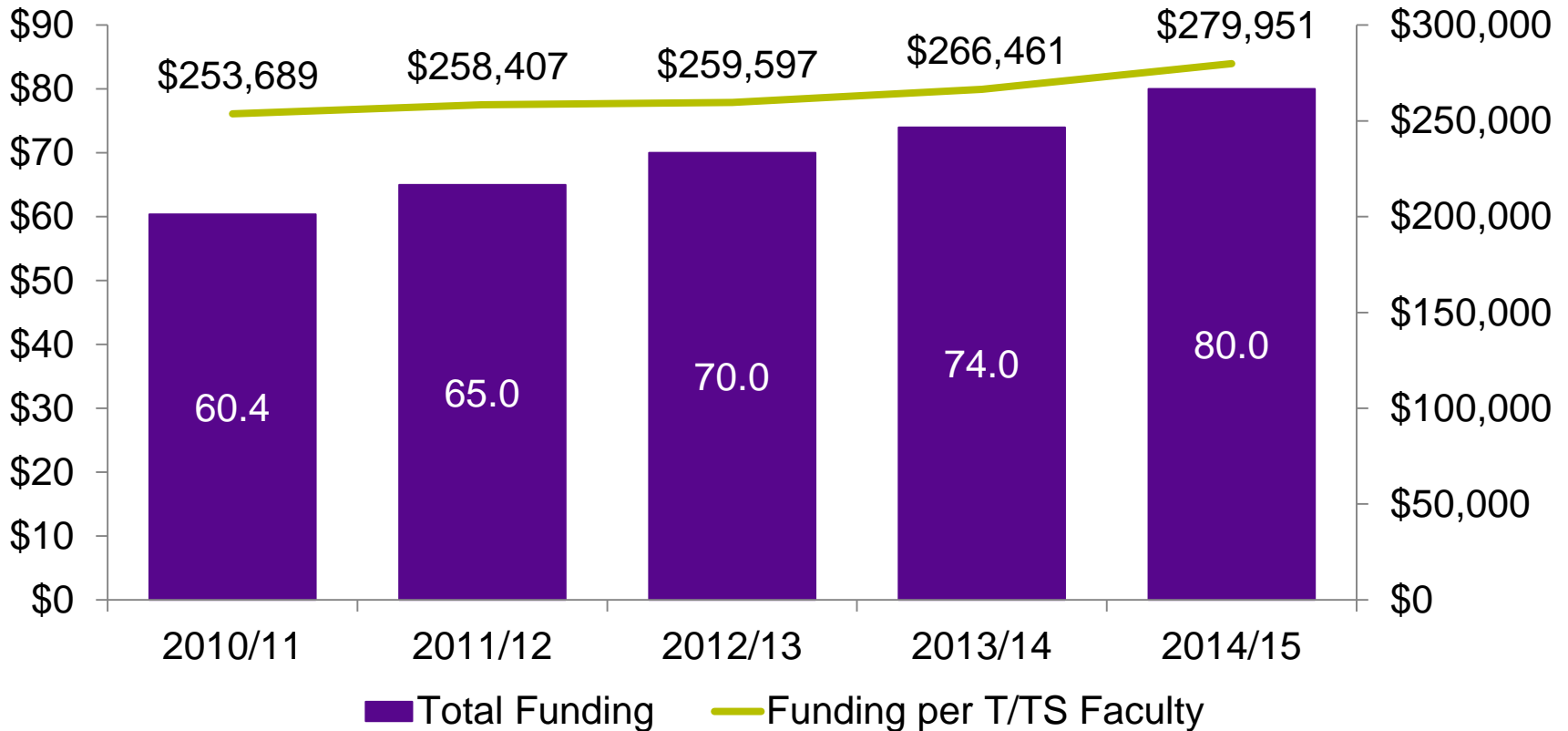


Tri-Council Funding (\$M),
2010/11



research funding targets

Increase Research Funding (+33%)



research objectives

- Establish a shared commitment to research excellence
 - Motivate increased activity (e.g. overhead)
 - Strengthen ties with industry
- Eliminate barriers to research success
 - Encourage technical research groups
 - Provide writing support for large proposals
 - Establish Associate Chairs, Research
- Celebrate research excellence

teaching objectives

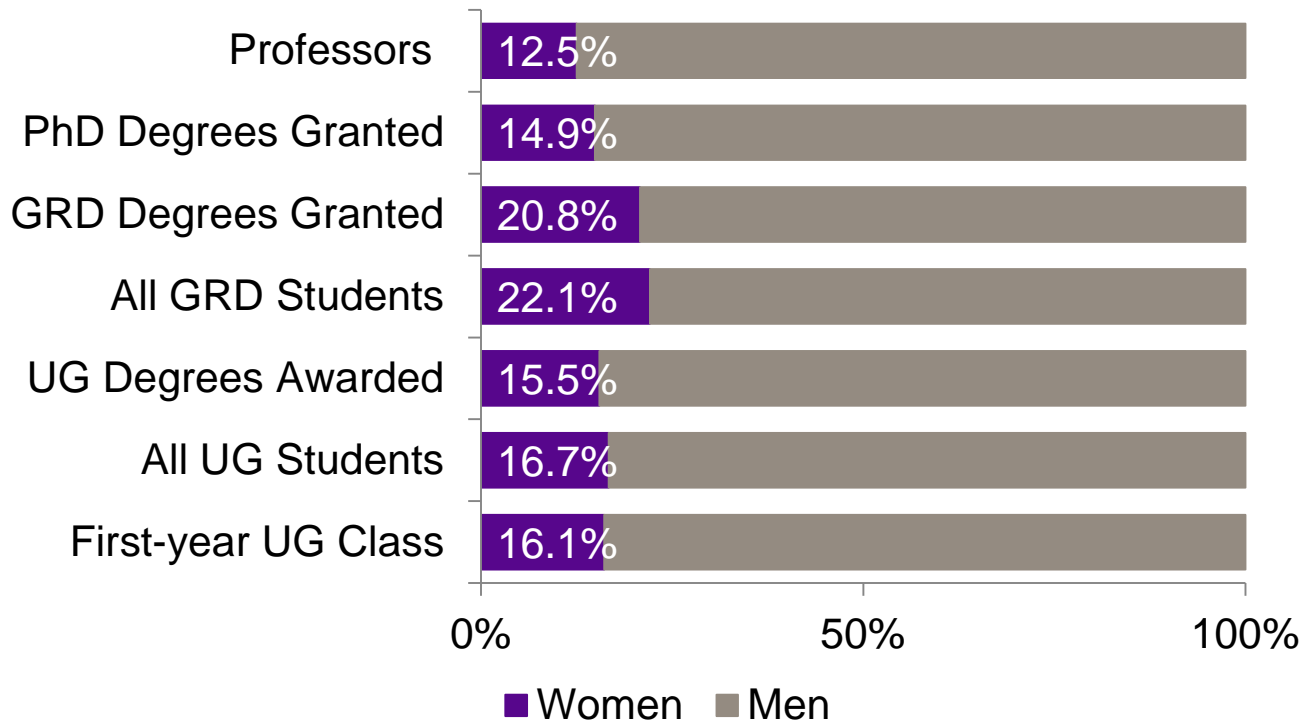
- Enhance support for teaching at the faculty level
 - Establish an Associate Dean, Teaching
- Contribute to the development of faculty members and TAs as teachers
 - Encourage participation in CTE workshops (mandatory for new faculty)
 - Enhance mentoring
- Affirm the importance of teaching

outreach objectives

- Expand the scope of Waterloo Engineering outreach programs
 - Introduce high school programming
- Enhance the Waterloo Engineering community through participation in outreach

women in engineering data

Women in Engineering Programs, 2010/11

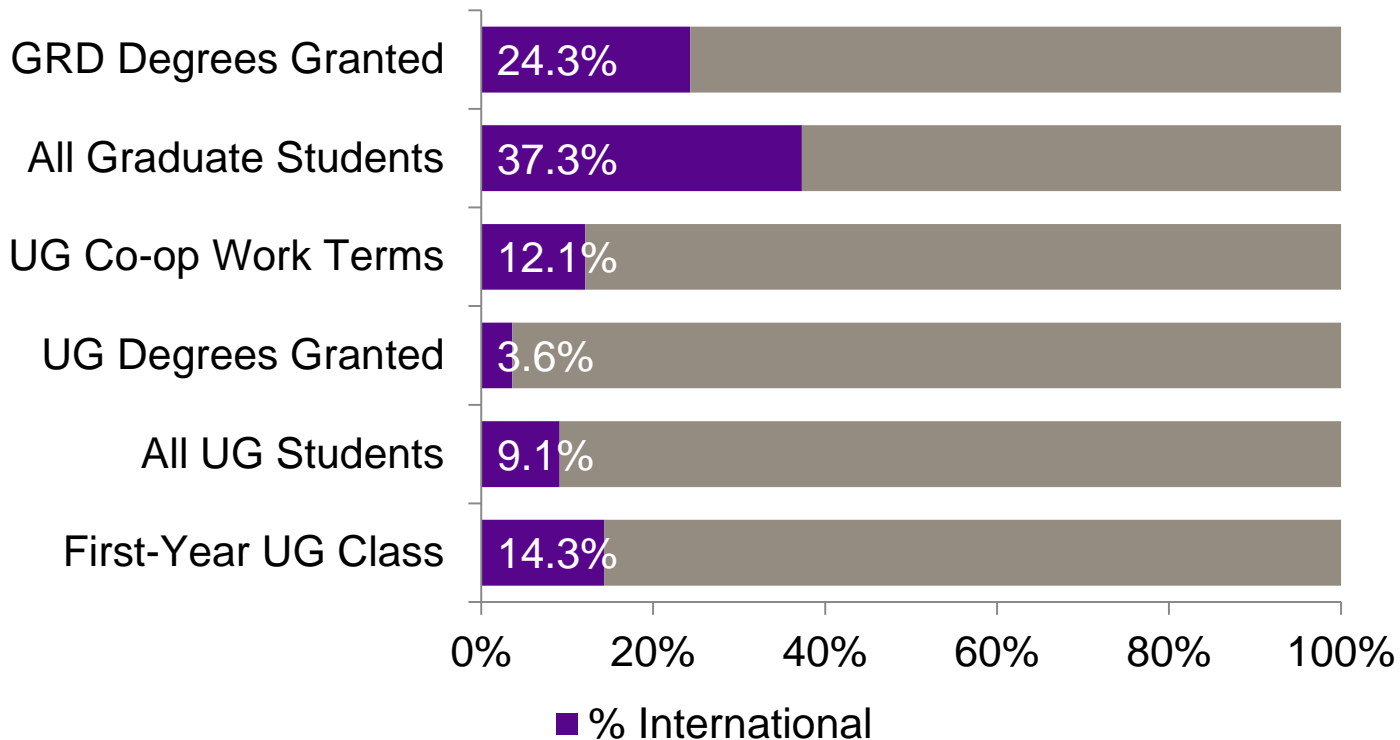


diversity objectives

- Increase the participation of women in engineering at Waterloo
 - Increase confirmation rates on offers to women
 - Proactively seek female applicants for faculty positions
- Build an inclusive atmosphere within Waterloo Engineering
 - Establish a task force on diversity & inclusivity

internationalization data

International Student Metrics, 2011



internationalization objectives

- Increase international undergraduate enrolment
- Increase international experience opportunities for undergraduates
- Increase international graduate studies and research collaborations
- Pursue targeted collaboration initiatives in India
- Support the ongoing development of UAE campus programs

entrepreneurship objectives

- Enhance initiatives to foster entrepreneurial activity and innovation
 - CBET
 - E Co-op
 - Capstone projects
 - Diploma in Advanced Management

supporting the plan

- Faculty & Staff Positions
- Budget
- Technology
- Advancement
- Space

supporting the plan



We are confident that with the continued commitment and guidance of our senior leadership and the excellent work of all our students, faculty, staff, alumni and other community members, the Vision 2015 plan will help establish Waterloo Engineering as a truly world-class school of engineering.

Questions & Feedback



THANK YOU

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