



What's out there?

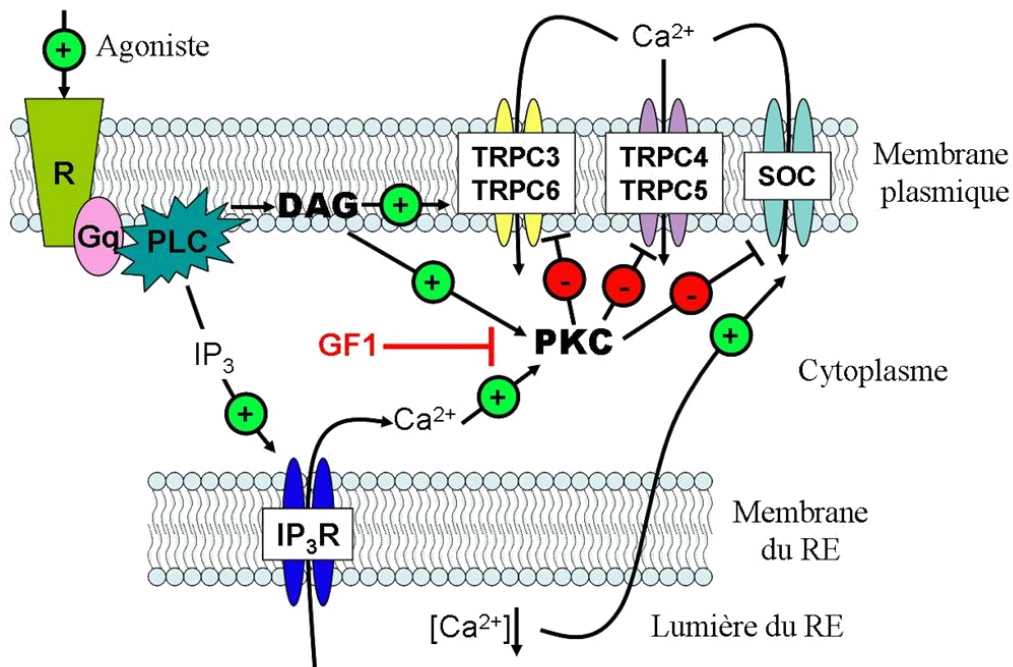
Simon Bousquet, PhD
Director, business development

sbousquet@mitacs.ca

819-571-2936

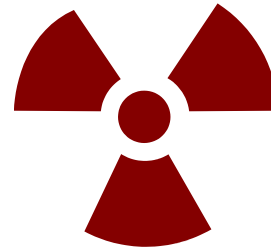
My background - academic

- ➔ BSc biochemistry - 2003
- ➔ MSc pharmacology - 2005
- ➔ PhD pharmacology - 2010



My first job

Radiosafety officer at Université de Sherbrooke
(mat leave)



Then

Biosafety officer at Université de Sherbrooke
(sabbatical)



And then Mitacs!

- ➔ Joined in December 2012
 - ➔ As specialist on 1-year contract
 - ➔ Got renewed/promoted
 - ➔ Very happy!
-
- ➔ I got the job because
 - PhD
 - OTHER SKILLS!!

Training & employment in life sciences

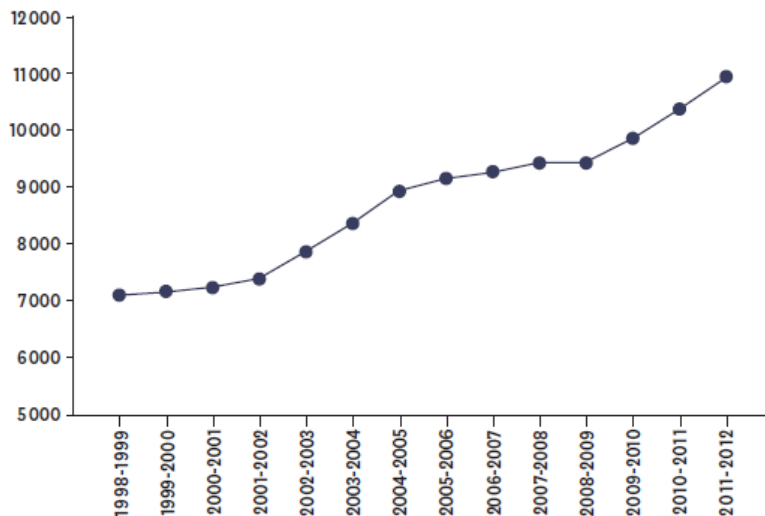
Emploi Québec published a report

(http://www.emploi-metropole.org/publications/CEM_Formation-Sciences-vie.pdf)

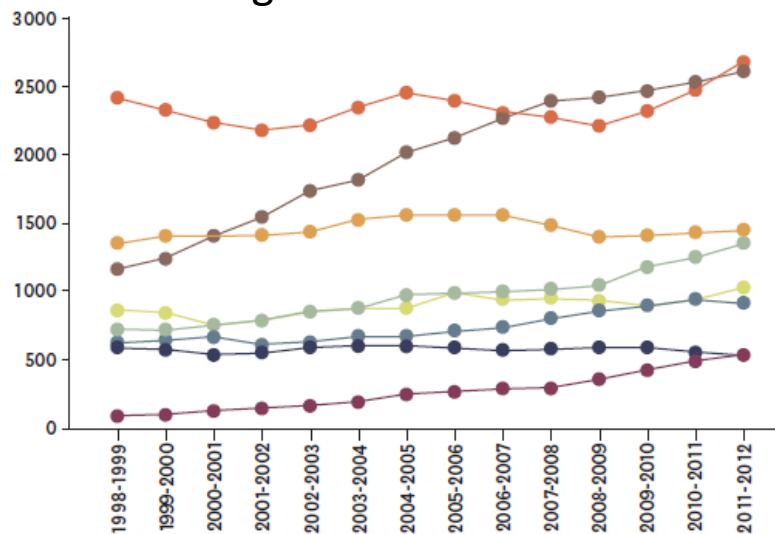
- ➔ For Montreal area
 - ➔ For major sectors : IT, aerospace & life sciences
 - Drug and pharma products manufacturing
 - Medical devices manufacturing
 - Distributor of pharmaceuticals
 - Research and scientific development
 - Diagnostic analysis and medical labs
- (chemists, biologists, chem eng., MD, veterinarians, pharmacists, program agents, salespersons, technicians)

From the report – training offer

Total registrations



Total registrations



- 5102 SCIENCES FONDAMENTALES ET APPLIQUÉES DE LA SANTÉ
- 5200 SCIENCES BIOLOGIQUES
- 5211 MICROBIOLOGIE
- 5214 BIOCHIMIE
- 5245 CHIMIE
- 5355 GÉNIE BIOLOGIQUE ET MÉDICAL
- 5356 GÉNIE CHIMIQUE
- 5112 PHARMACIE ET SCIENCES PHARMACEUTIQUES

Graduation



TAUX DE DIPLOMATION – SCIENCES DE LA VIE
 TAUX DE DIPLOMATION – ENSEMBLE DES PROGRAMMES

FORMATION
UNIVERSITAIRE

From the report – training-job ratio

BIOLOGISTES ET AUTRES SCIENTIFIQUES (2121)

DISCIPLINE UNIVERSITAIRE	DÉBUTANTS VISÉS	DÉBUTANTS RÉELS	ÉCART (NOMBRE)	RATIO D'ADÉQUATION	DIAGNOSTIC
5214 – Biochimie	7	36	29	515 %	Surplus important
5355 – Génie biologique et biomédical	2	13	11	679 %	s.o.
5102 – Sciences fondamentales et appliquées de la santé	6	31	25	522 %	Surplus important
5211 – Microbiologie	5	28	23	593 %	Surplus important
5200 – Sciences biologiques	21	87	67	423 %	Surplus important
5112 – Pharmacie et sciences pharmaceutiques	2	2	-1	70 %	s.o.
Total universitaire	43	197	155	464 %	Surplus important

AGENTS DE PROGRAMMES, RECHERCHISTES ET EXPERTS-CONSEILS EN POLITIQUES DE LA SANTÉ (4165)

PROGRAMME D'ÉTUDES	DÉBUTANTS VISÉS	DÉBUTANTS RÉELS	ÉCART (NOMBRE)	RATIO D'ADÉQUATION	DIAGNOSTIC
5102 – Sciences fondamentales et appliquées de la santé	19	44	25	234 %	Surplus important

From the report – what does the market want?

Competencies sought for when hiring

- ➔ Experience
- ➔ Project management competencies
- ➔ GLP and quality systems
- ➔ Technical capabilities (methods, protocols...)
- ➔ Knowledge of a subject

From the report – conclusions

- There's a quantitative surplus of university graduate
- The problems in the life sciences job market did not affect the registrations
- There's a risk of brain drain in QC
- There's a demand for specialization
- Growing demand for multidisciplinarians

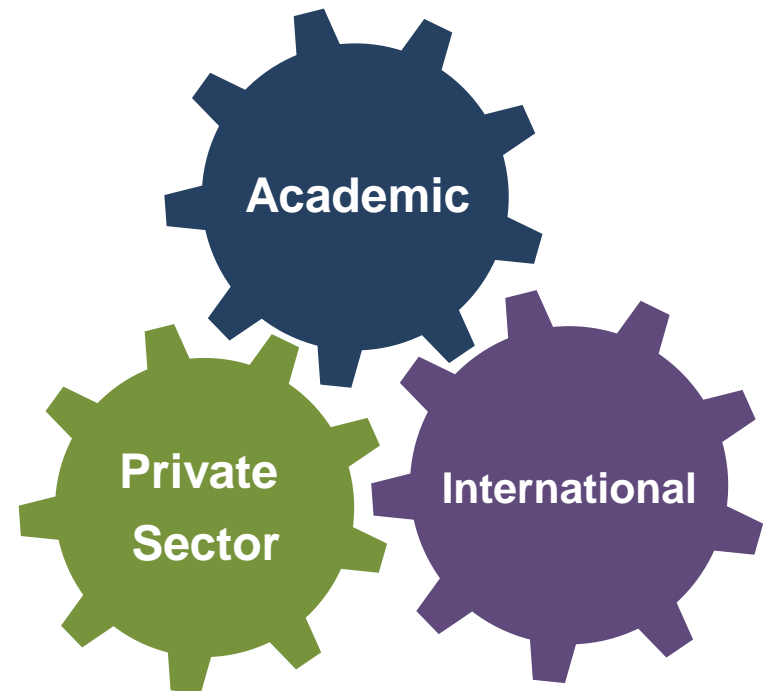
Why Mitacs?

- ➔ National research network
- ➔ 15 years in operation
- ➔ Over 10,000 research projects
- ➔ 60+ academic partners



Mitacs program goals

- ➔ Support flexible, consultative research projects
- ➔ Attract private sector funding
- ➔ Maintain high quality research
- ➔ Support all disciplines
- ➔ Attract international students to Canada
- ➔ Train graduates and postdocs for their careers



Annual snapshot - 2013



\$10.4M
PRIVATE SECTOR INVESTMENT



2000 +
INNOVATIVE RESEARCH PROJECTS



900 +
INDUSTRY PARTNERS



1700 +
RESEARCH INTERNSHIPS



6300 +
STUDENTS CAREER-READY



280 +
INTERNATIONAL STUDENTS
BROUGHT TO CANADA



50 +
UNIVERSITY PARTNERS



260 +
PROFESSIONAL SKILLS WORKSHOPS

Professional development - Accelerate

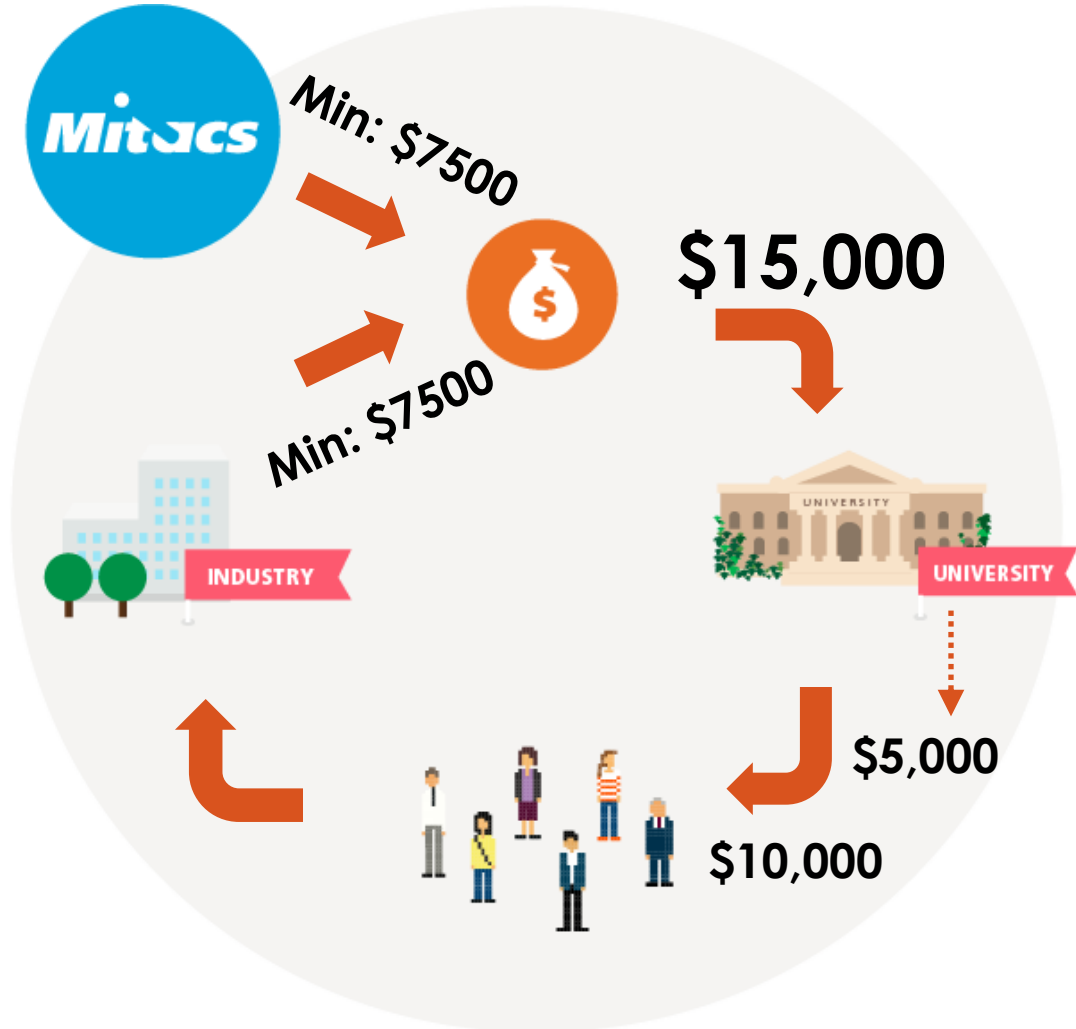
- ➔ Through experiential training
- ➔ Applied R&D projects
- ➔ Contact with a company's day-to-day operations



Mitacs Accelerate Funding cycle



=



Past projects in life sciences

For 2013-2014 fiscal year (12 months)

When choosing Biotechnology, Health and related sciences, Life Sciences, Health care and Pharmaceuticals sectors

- 898 internship segments were submitted (129 in QC, 413 in ON)
 - 686 with industries directly in life sciences sectors
- Total value of all projects : \$15,522,968 (over \$13.3M to students)

Past projects in life sciences

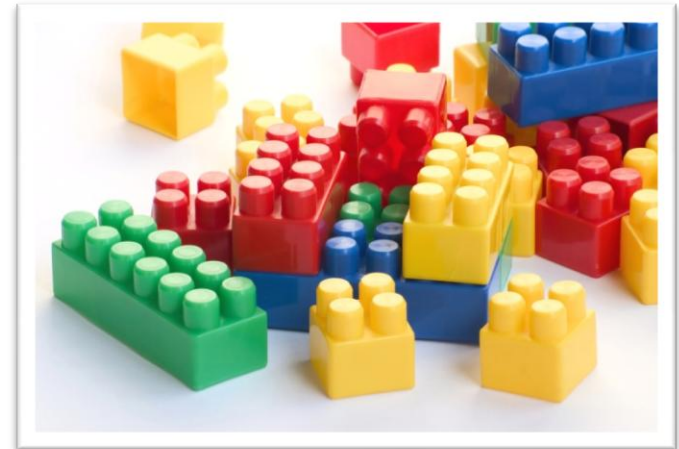
Absciex	CitoxLAB	Medtronic of Canada Ltd (Vancouver, BC)	Romich Medical Inc
ACCUCAPS Industries Ltd	Class 1 Inc	Merz Pharma Canada Ltd	Sanofi Aventis
Adept Diagnostics	Cryostasis Ltd	MetaOptima Technology Inc	Sanofi Pasteur
Adiga Life Sciences	Curatio	Mobecomm Inc	Sarko Holdings Inc
Advanced Theranostics	Cyclica Inc	Modus Medical Devices Inc	Saskatoon Health Region
Airmax environnement inc	Eastgate Pharmaceuticals	Montreal Reproductive Centre	SCF Pharma
Allergan Inc	Élisabeth Bruyère Research Institute	Mount Sinai Hospital (Toronto, ON)	Snieckus Innovations
Anandia Therapeutics	Endoceutics	Neomed	Soricimed Biopharma Inc
Anatis Bioprotection Inc.	Exciton Technologies Inc	NovoBind Therapeutics Inc	St. Michael's Hospital
Archeoptix Inc	Fenwick Leadership Explorations	NuBiyota Canada	StemCell Technologies Inc
Association des employeurs maritimes	Fio Corporation	Oculys	Synaptive Medical Inc
Atlantic Assisted Reproductive Therapies	GE Healthcare (London, ON)	Oncozyme Pharma Inc	Tantramar Veterinary Hospital
Axcelon Biopolymers Corp	GE Healthcare (Milwaukee, WI)	OtoSim Inc	Team Finn Foundation
Baxter Corporation Canada	Geneyouin	Ottawa Paramedic Service	TerraVerdae Bioworks Inc
BC Cancer Agency	GPS to GO	Panacea	The Ottawa Hospital
BC Children's Hospital	Hammock Therapeutics Inc	ParticipACTION	The Sandbox Project
Bertech Pharma Ltd	HAS Motion	PharmaScience (Montréal, QC)	The Saskatoon Colostrum Company Ltd
BEworks	Health Technology Connex	PhenoSwitch Biosciences Inc	Therapeutic Monitoring Systems Inc (Ottawa, ON)
BioMark Technologies Inc (Richmond, BC)	Heart Force Medical Inc	PlantForm Corporation	Thornhill Research Inc
Bionik Laboratories Inc	HP Fitness	Precision NanoSystems Inc	Toshiba Canada
Bioriginal Food and Science Corp	Huron Technologies International Inc	Prefail Dental Solutions	Treatment
BioVectra Inc	Indanio Bioscience	ProActive Physiotherapy	Treventis Corporation
Brunel Canada	Indel Therapeutics	Proteocyte Diagnostics	Unitron Hearing Ltd
Canada FASD Research Network	Interaxon	Quebec Consortium for Drug Discovery (Montreal, QC)	University Imaging Associates
Canadian Society for Exercise Physiology	inVentiv Health	Quorum Technologies Inc	Verisante Technology Inc
Cardiome Pharma Corp	iProgen	Rehabtronics Inc	Vertex Pharmaceuticals Inc
CellAegis Devices Inc	Kalgene Pharmaceuticals Inc	Resource Environmental Associates Ltd	viDA Therapeutics Inc
Center for Drug Research and Development	LionsGate Technologies	Respiratory Homecare Solutions Inc	ViroCarb Inc
Chelation Partners Inc	Manjog Enterprises Limited	ReSync Consulting Ltd	ViVitro Labs Inc
Circle Cardiovascular Imaging Inc	Medtrode	Risk Science International	Watson Pharma

Professional development - Step

- ➔ Through workshops
- ➔ Offered to graduate students and PDF

Mitacs
Step

trains graduate students and postdoctoral fellows in essential interpersonal, project management and entrepreneurial skills required for them to succeed in their future career.



Workshops offered

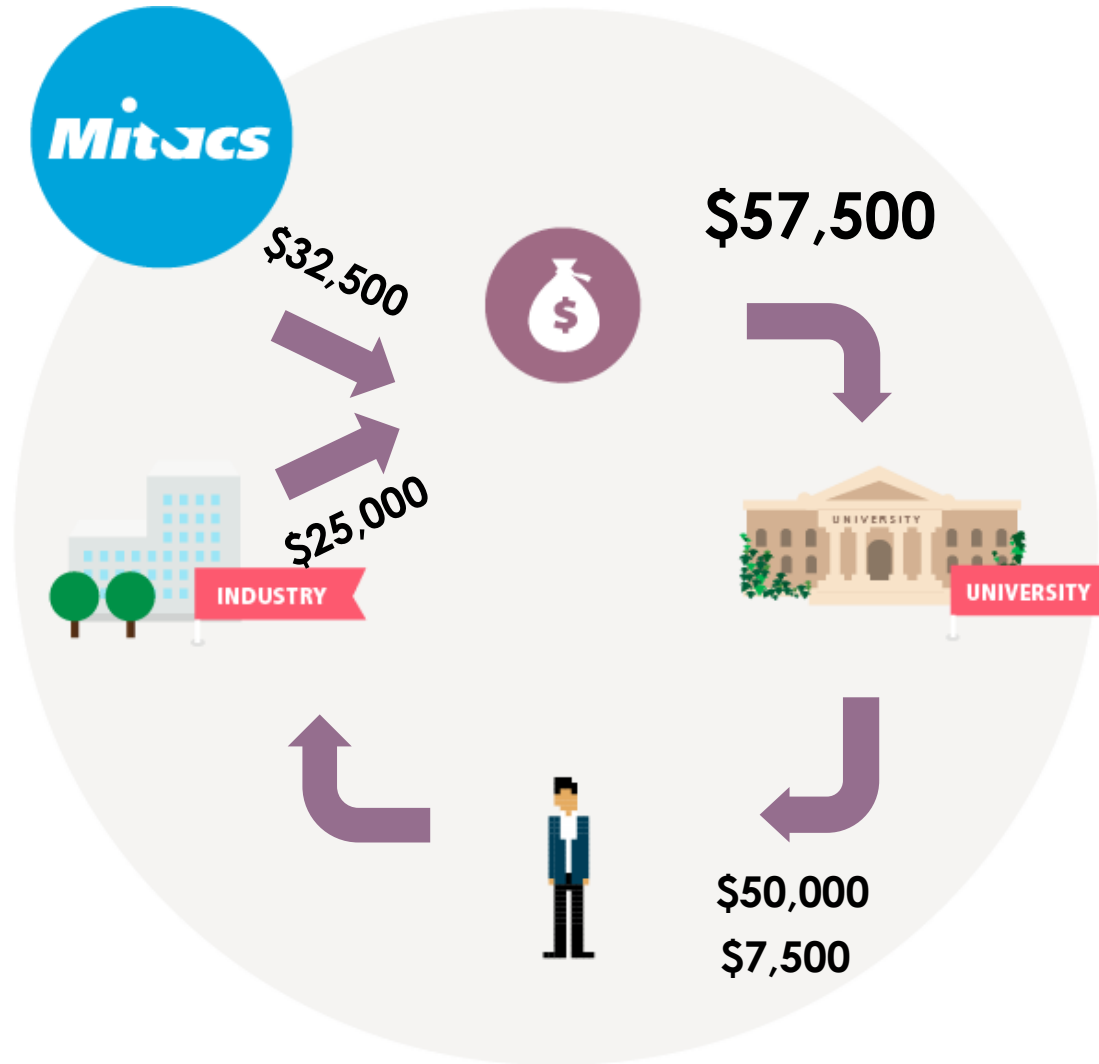
- ➔ Foundations of project management I and II
 - ➔ Business etiquette
 - ➔ Networking skills
 - ➔ Communication skills
 - ➔ Presentation skills
-
- ❖ Based on a reevaluation of the current literature by OECD, CAGS, american associations
 - ❖ Interviews with industry stakeholders
 - ❖ Consultation with Mitacs Research Council

Professional development - Elevate

- ➔ Through both experiential and formal training
- ➔ Offered to postdoctoral fellows
- ➔ Aims at developing the next generation of R&D managers



Mitacs Elevate Annual Funding cycle



Globalink, Converge

- ➔ Globalink (India, China, Brazil, Mexico, Turkey, Vietnam)
 - Research internships : 12 weeks internships offered to top international undergrad
 - Profs may now submit their projects for summer 2015
 - Research awards : up to \$5,000 award for research done with academic international collaborator for 3 to 6 months
 - Partnership awards : \$15,000 for a collaborative research project done with international company
- ➔ Converge : link MNE with SME and universities
 - Atlas Electronik, Raytheon

Merci à nos partenaires financiers



Via le programme de stage en recherche et développement industrielle

