Industrial Collaboration with MC2

An introduction to Companies

Department of Microtechnology and Nanoscience- MC2
Chalmers University of Technology
 Göteborg
 Sweden
MC2 collaborates with companies in research and innovation

Three models for your company to collaborate with MC2:

1. Advisory
   *Give directions for MC2 research*

2. Contract
   *Research for hire at MC2*

3. Joint Venture
   *Bring research from MC2 faster to your company*
1. Advisory

Give directions for MC2 research

- Bilateral or multilateral projects or centers
- Zero cash costs for company (0%)
- Project results at MC2 owned by individual researcher
  
  *E.g. SSF centers, Vinnova programs*
2. Contract

Research for hire at MC2

Company/Companies

Cash

In-kind

Project at MC2:
Personnel
Resources
Competence

Bilateral projects on strict agreement
Full cash cost for company (100%)
Project results at MC2 owned by company
Confidentiality clauses

E.g. SiC MOSFET project 2002-2006
3. Joint Venture

Bring research from MC2 faster to your company

Bilateral or Consortium agreements
Share costs between partners (20-50%)
Project results at MC2 owned by either Chalmers (for centres) or individual researcher. Non-exclusive license or option offered to companies.

E.g. GHz Centre, Microwave Wide Bandgap
MC2 statement to potential industrial collaborators

• MC2 has a mission to transfer knowledge and inventions from Chalmers to our strategic company partners.

• MC2 looks for long-term strategic partnerships with companies which add value and resources to our research environment.

• MC2 is an open research and innovation environment and we are proud to show and highlight our strategic company partners and joint projects.
MC2 strengths in research and innovation

- MMIC design for microwave / mm-wave
- Mixed signal design for high bit rates
- RF power amplifiers
- RF/microwave device modeling
- Wide bandgap technology, devices and circuits: in house GaN MMIC process
- Microwave low-noise devices and amplifiers: in house InP HEMT process
- THz technology: detectors, signal sources
- Fiber optic communication: Parametric amplifiers, optical monitoring
- Semiconductor lasers for optic communication
- Diffractive optics / Liquid crystals
- Micro-technology packaging and integration / Micro- and nano-systems
- Quantum transport and computation, molecular electronics, bionanosystems
- Superconductors: solid state theory, SQUID components and digital RSFQ circuits

Unique Clean Room processes: Microwave, photonic and quantum components
State-of-the-art microwave and photonic characterization facilities

Links: www.chalmers.se/mc2 www.chalmers.se/ghz
General guidelines for companies interested in collaboration with MC2 (1)

• Find the research area and contact relevant faculty scientist at MC2
• Inform from the beginning the person responsible for Industrial Relations at MC2
• Analyze the situation with respect to:
  — Balance in background knowledge and resources between company and MC2
  — Current MC2 industrial partners
• Select collaborative model from the beginning: this will be decisive for the negotiation, investment and agreement
• Identify potential public sponsors, e.g. public agencies or foundations
General guidelines for companies interested in collaboration with MC2 (2)

- MC2 prefers Joint Venture: many years of experience have shown that this is the most efficient way of transferring results from MC2 to companies which obtain large IPR at a relatively small cost
- MC2 prefers contract research projects > 1 MSEK
- MC2 avoids excessive confidentiality clauses: the exception is in Contract research
- Template agreement for each collaborative model between company/companies and MC2 is handed out on request
- Project can only start after project is signed by Chalmers and company
- MC2 signs agreement with company in Contract or Joint Venture after:
  - Project plan is approved by all partners
  - Each individual researcher at MC2 involved in project has signed an agreement
Contact

Cristina Andersson
Industrial Relations
Department of Microtechnology and Nanoscience - MC2
Chalmers University of Technology
cristina.andersson@chalmers.se
+46-(0)761-25 70 81

Dag Winkler
Head
Department of Microtechnology and Nanoscience - MC2
Chalmers University of Technology
dag.winkler@chalmers.se