

# Jean-Michel Le Roux

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## Technology Director with Business Acumen

*Creative Approach / Objective Focus*

**PhD in physics & Executive MBA program**

An experienced manager with a background in delivering comprehensive worldwide management and direction to multidisciplinary and multicultural teams influencing and aligning others to maximize results.

Have developed high-performance systems strategies and organizations acting both strategically and tactically, with the ability to develop and execute aggressive plans within the constraints of schedules and resources.

Mastery and deep experiences of multiple programming languages and development tools in particular for applications in signal and speech processing but also for instrumentation on multiple platforms.

### DEMONSTRATED ABILITIES & ACHIEVEMENTS

CALLIOPE, Geneva, Switzerland 2004-  
Projects in R&D and Business Development in particular in sport and medical fields.

#### **Project management**

- Studies and analyses of various fields for the development of business plan for projects potentially in incubation.
- Interactions with legal services for the realization of strategies allowing the effective resolution of dispute.
- Direct collaboration with industrial protection professionals for the drafting and the patent filling.
- Organization and management of meetings for the improvement of relational networks.

MANTEIA, Coinsins, Switzerland 2002 – 2003  
Technology R&D start-up with 50 employees, a spin-off of SERONO (SRA). The Manteia target was to do predictive medicine

#### **Bioinformatics & Instrumentation Director**

Managed 15 direct and 3 indirect reports. Realization in 3 months of fully automated new instruments. Identified and managed Project risks. Liaised with key stakeholders on project progress.

- Delivered Project both on time and on budget, subsequently promoted to direct report to the Chief Executive Officer. Successful completion of the project resulted in a 2 million-dollar deal.
- Developed an internal customer approach between teams creating an understanding of the broader implications of their roles.
- Designed and implemented an internal information management system to provide transparency from research bench to data analysis.
- Re-motivated and re-focused team on setting project deadlines and on increased quality of deliverables.
- Re-organised staff creating a matrix organisational structure driven by multi disciplinary key task forces.

I.B.M. (T. J. Watson Research Center), Yorktown Heights, U.S.A. 1995 – 2001

#### **Research Staff Member & Team leader**

350 000 Employees, \$90b total Revenue, Managed a team of 4 staff directly and 10 members indirectly. Focused the ViaVoice (Automatic Speech Recognition) Telephony team through the effective management of internal and external communication. Liaised globally with research, development testing and speech experts.

- Analysed the multi -functional, -location and -tasks development process implementing a "one-click" system with which a coherent system could be installed for test or ship.
- Created an automated system for daily regression testing of IBM's speech recognition engine for 125 global users.
- Realization of a fully packaged simplified, easy to use, customer oriented toolkit.
- Highly involved in the debugging phase of a high volume software product (ViaVoice).
- Developed and improved algorithms in all modules of the engine including front-end, fast-match, detailed-match, language model and hyper-search.
- Optimized the training process from speed and memory perspectives.
- Worked on multiple Operating Systems (AIX, Linux, Solaris, Unix, Windows) and languages.

MATRA Communication, Bois d'Arcy, France

1989 – 1994

**Signal Processing Research Engineer / Deputy Project Manager**

8200 Employees, \$1b total Revenue

- Combined Wavelets and CELP decoder to improve speech quality.
- Developed echo cancellation algorithm based on wavelets and sub-band decomposition.
- Combined automatic and signal processing domains to develop a robust technique for noise filtering with solution ultimately integrated in a commercial cellular phone.
- Participated in European project collating and analysing worldwide data and subsequently presenting findings.

#### EDUCATION

**Executive MBA program**, Mastering Technology Enterprise, Lausanne, Switzerland, 2004  
International Institute for Management Development (IMD) with EPFL & ETHZ

**Project Manager**, 2001

The George Washington University (Washington DC, USA)

**Ph.D. In Physics**, Electronics Option, 1991 - 1994

Ecole Nationale Supérieure des Télécommunications de Bretagne (E.N.S.T.B.) & U.P.M.C.

**D.E.A. D'électronique**, Electronics and Instrumentation Option, 1989 – 1990

University of Pierre et Marie Curie (U.P.M.C., PARIS VI) with E.S.P.C.I. & E.N.S.T.

**Maitrise E.E.A.** (Electronics, Electrotechnics, Control), M.EM.I. Option, M.Sc.equiv. 1987 – 1989

University of Pierre et Marie Curie (U.P.M.C., PARIS VI)

#### HONORS

- '05 Who's Who in Science & Engineering
- '00 Research Division Award, I.B.M.
- '99 IBM Honors, I.B.M.
- '96 Outstanding Technical Achievement Award, I.B.M.
- '96 First Patent Application Invention Achievement Award, I.B.M.
- '88 Won top award at Conseil Général du Val d'Oise

PROFESSIONAL MEMBERSHIPS: Connexio, Elec'6, IEEE, IMD Alumni, AIC of Geneva

LANGUAGES: French (Mother Tongue), English (Bilingual)

NATIONALITY: French