International Conference on Nanotechnology for Renewable Materials



Innovation and R&D Manager Expert in paper, nano-cellulose and printed electronics

Gaël DEPRES



PERSONAL INFORMATION

- French, 50 years old, married, 2 children (18, 22), based near Grenoble (France)
- French, mother language English, very good level German, school level

EDUCATION

• 1996-1999	Ph. D. in process engineering	Grenoble INP and ABB Cellier
• 1995-1996	DEA (Master) in process engineering	Grenoble INP – France
• 1993-1996	Engineering degree in paper making	Grenoble INP PAGORA France, ranked first in class
• 1991-1993	Preparatory classes for "High schools"	•





Grenoble, france

Verona, Italy

PROFESSIONAL EXPERIENCES

Teacher Assistant - INP PAGORA et ENSEE (Grenoble, France).

Research assistant - LYDALL AXOHM (Melrand, France)

1996

1996

2023 Senior Innovation & Grenoble R&D Center Manager - FEDRIGONI Group (2,2 Md €, 5000 people) Manage the French R&D center for the group, development of new products, Innovation platforms and collaborative projects. 2019 **R&D Director** - ARJOWIGGINS GROUP (150 M€, 800 people). Definition of R&D roadmaps, selection and following of projects, of patents, of the R&D budget (1 M€) and development of collaborative projects (10 projects), mainly Europeans. Since 2014 **Board member and treasurer** of the French association for printed electronics (AFELIM) 2009 Manager for Exploratory research and partnerships - ARJOWIGGINS CREATIVE PAPERS. Development of new products: smart papers (RFID, smart labels, sensors), nano-cellulose, fine papers, luxury packaging. Collaborations with many European partners. 2008 Manager for exploratory research - GROUP ARJOWIGGINS. In charge of pre-projects with Artistic director. Development of partnerships with connected industries. 2006 **R&D Director** for the VISUAL COMMUNICATION (Fine paper, Art paper) Branch of ARJOWIGGIN (350 M€). Member of the executive comity, following of R&D projects and managing of R&D budget (3 M€). 2003 **R&D Business Leader** for Fine paper, Art Paper and Microfibers (HEPA and ULPA filters and battery separators for Bernard Dumas division) ARJOWIGGINS (Apprieu, France). Management of R&D projects portfolio. Member of the innovation team - ARJOWIGGINS (since 2003). Technologic watch of new processes and products (electrospinning, encapsulation...). **Research Engineer** - ARJOWIGGINS (Apprieu, France). 1999

PUBLICATIONS, CONFERENCES, COLLABORATIVES PROJETS, PATENTS and AWARDS

- 10 scientific articles realized on specialty papers, nano-cellulose and printed electronics.
- 27 conferences as speaker and 2 as participant (France, Europe and US).
 - Management of 3 PhD thesis (nano-cellulose and printed electronics).
 - Management of 26 masters (Grenoble INP, Mines Saint Etienne, Universities of Montpellier and Tampere).
- Active participations in 11 collaborative projects (INNPAPER, SUPERSMART, MADRAS, INNPRESSME, CIRCEL ...).
- Filing of 22 patents (specialty papers, printed electronics and nano-cellulose), most of them as main inventor.
- 8 Awards received between 1996 and 2021 (OEA, IDTECHEX, WORLD TECHNOLOGY AWARDS, ...).

COMPETENCES

Definition of Innovation strategy

- Building of Innovation and R&D Roadmaps.
- Innovative spirit

Management of R&D

- Management of a multicultural and geographically dispersed R&D team (up to 20 people) and of a R&D center.
- Usage of methodical process to manage R&D, with selection of projects, following of projects with Gantt charts, setting and following of budgets, following of patents portfolio.
- Capacity to convince top Management (with data on the profitability) of projects
- Patents management

Technical Expertise

- Fine papers (touch effects, optical effects, textures...), art papers, luxury packaging, specialty papers.
- Printed electronics: Antenna design, printed sensors, display and battery.
- Plastic replacement: Nano-cellulose: Development of a range of nanofibrils and improvement of paper for plastic replacement in packaging. Barrier coating of Nanocellulose and of polymer coatings.







Achievements

In management:

- Managed a multicultural (French, Spanish, English, Scottish) R&D team, including central R&D and laboratories in factories (Spain, England and Scotland). Successfully agglomerated all the team.
- Developed a strong ecosystem: Schools (Grenoble INP Pagora, Phelma..), national/European research centers (CEA, VTT, Fraunhofer, CIDETEC, Eurecat,..) and connected industries. Improve the R&D of Arjowiggins up to an international level.
- Developed a portfolio of collaborative projects (mainly Europeans) with more than 2 Millions Euros fundings on 11 projects.
- Used with success methodologic R&D process (Management of Technology), with projects selection, with go/nogo gates and with project team (Marketing/sells, R&D and technical in factory).

In technical:

- Industrialized many innovative papers: Soft Touch, Skin, Cosmic, Bamboo, Sludge paper, Smart papers, Antivirucidal paper, Transfer papers range...
- Improved many existing papers : Sensation, HEPA/ULPA filters, battery separators, Digital (Indigo), Art papers, thin opaque, medical papers...
- Built a printing industrial line for printed electronics in Spain (Guarro) with innovative processes to unable the NFC antenna printing in one pass (mainly used EU fundings to build it).
- Developed a range of nanocellulose for plastic replacement
- Received many awards and filed many patents during my carrier, managed the patents portfolio properly

What I recommend

Always do what you like to do (Money is not the top priority)

Increase your network to have collaborations

Travel to know other ways of doing things

• Be serious but have fun

Perspectives

- Continue to develop new products in the field of printed electronics and nanocellulose

- Have a societal impact on the :
 - Plastic to paper replacement to reduce the environmental impact of packaging
 - Connected objects to ease the life of consumers
- Continue to work in a company in R&D but still continue to work very close to University and research institute and on collaborative projects

Thank you for your attention

DEPRES Gaël

Senior Innovation & Grenoble R&D Center Manager



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