



**Methodologist Engineer**  
**Relativized Systemic (RS) evangelist**  
**System Engineering / Knowledge Management**

[www.mersyse.com](http://www.mersyse.com)

*Experience*

Since 2005 to date



ORCA – Paris area (France) – radical constructivism

- **Relativized Systemic (RS) thesis** (by H. Boulouet): contribution to the, that sets up the formal framework used to develop and tool Relativized System Engineering (**RSE** : complex system engineering) and Relativized Information Management (**RIM**: Project or knowledge building information systems);
- **RS metamodel**: contribution to EMF modeling (Eclipse Modeling Framework);
- **RS dissemination**: contribution to several RSE and RIM presentations, design of presentation brochures;
- **RSE teaching**: development of a 40 hours training medium - to meet the demand of an engineering school, for 2<sup>nd</sup> and 3<sup>th</sup> year students ESIGELEC (Rouen);
- **RS website**: Development of a website on RS project and related developments.

Since 1999 to date



PSA Groupe – Paris area (France) – automotive industry

**Duration:** from 2012 to date  
**Position:** configuration management leader  
**Domain:** engine control system

**Achievements:**

- Methodological development and prototyping of a solution to manage the lifecycle and configuration of numeric models (MBSE - Model Based System Engineering);
- Configuration management for business tool software;
- Business development plan for configuration management of engineering deliverables.

**Duration:** from 2004 to 2011  
**Position:** method & tool service manager, system engineering leader  
**Domain:** engine control system

**Achievements:**

- Evangelization of Relativized System Engineering (RSE) for control laws design;
- Creation of a Matlab based tool design framework;
- Agile development, within RS framework, of a **RIM** operational mockup used as a PLM platform (automotive - powertrain) : **Sonia**;
- **Sonia** user support and training (more than 400 users, more than 50000 deliverables for 40 engine projects and for 7 years);
- Contributor to the PSA corporate approach to System Engineering (ISA): analysis, highlighting of methodological inconsistencies and pitfalls;
- Collaboration with Renault SA to a SIA System Engineering day, focusing on Relativized System engineering (**RSE**) as a framework to Model Based System Engineering (MBSE);
- Elaboration and defense of a CIFRE project on neural networks modeling to develop self-adapting control laws for thermal engine actuators. Meetings and collaboration with research laboratories: ECS from ENSEA (servomechanism, chaotic system, diagnosis), INSERM (neurosciences) and IRSEEM (thermal engine control law) – still relevant today;
- Adhesion to INCOSE, to AFIS (French association for System Engineering) - involvement in the system architecture and IVVQ groups.

**Duration:** from 2002 to 2003  
**Position:** method & tool leader for electric-electronic projects  
**Domain:** engine control system

**Achievements:**

- Implementation of standard System Engineering rules in electric-electronic project management (work package structure, cost profiles, engine control software formalization and configuration management of control engine ECU);
- Involved in the corporate project on Automotive System Engineering.

**Duration:** from 1999 to 2001  
**Position:** electric-electronic project leader  
**Domain:** engine control system

**Achievements:**

- EW gasoline engine project manager (4 engine types from 1.6l to 2.2l for more than 400 vehicle applications, 20 employees including project managers, designers and checkers);
- Design of the formalization process for engine control software, and process implementation (3 vehicle applications per week);
- Design of the material breakdown configuration management for engine control out of SAP referential;
- Qualification of Supplier design processes, technical support for purchasing department.

**From 1996 to 1998**  **Matra Marconi Space – Paris area (France) – space industry**

**Position:** supply project leader  
**Domain:** electronic component engineering for space satellite platforms

**Achievements:**

- Management of supply for Skynet military telecommunication satellite family, in relation with procurement specification agencies: DoD, ESA, TRW ...;
- Integrated to UK team at Stevenage and relations with MoD;
- Qualification of configuration management tools, “Surf” for production and “Sprint” for design. Contribution to ISO 9000 certification.

**From 1993 to 1995**  **GIAT Industries – Paris area (France) – military industry**

**Position:** electronic project leader

**Domain:** fire control system and communication network for Leclerc tank

**Achievements:**

- Management of Fire control unit (CCT) development, subcontracted to DASSAULT Electroniques;
- Qualification of Supplier designs: design reviews (particularly Reliability, Availability, Maintainability, and Safety - RAMS), environment constraints (EMC, electrical, humidity, mechanical, thermal);
- Acceptance of end products, technical support for purchasing department;
- Management of related physically resources (integration bench, computer-aided software engineering);
- Management of communication network electronic boards, subcontracted to SAGEM;
- Management of the integration of ECU to the end product and of the associated validation.

**From 1991 to 1992**  **Thomson TRT Defense – Paris area (France) – military industry**

**Position:** mechatronic project leader

**Domain:** laser range finder (TMV630) for Mirage F1-CT fighter

**Achievements:**

- Hardware design of a 68020 processor electronic board fitted to different communication networks (1553, ARINC and Digibus): 12-layer printed circuit board, build grid array processor, customized connectors, dual ported memory, EPLD components, power transistors;
- Computer-aided software engineering ;
- System integration, validation and qualification (production and maintenance).

**From 1989 to 1990**



**General Electric – Paris area (France) – health industry**

**Position:** electronic system adjuster

**Domain:** 100 KW x-ray generator power supply to medical imaging

**Achievements:**

- Adjustment of power thyristor control law;
- Full power tests and health certification;
- Maintenance documentation (fault tree).

**In 1988**

**Renault Automation / ACMA – Paris area (France) – industrial robotics**

**Position:** electronic designer

**Domain:** industrial robot for automotive production

**Achievements:**

- Usage specification of brushless asynchronous electric motor with high-precision resolver.

## *Education*

- 2018 Training course of JAVA EE (Eclipse platform, IntelliJ IDEA) with Openclassroom
- 2014 Training course of HTML, CSS and PHP with W3School
- 2008 Start of self-learning to phenomenology and to constructivist epistemology
- 1999 Start of self-learning to neuroscience and to psychology
- 1986 Start to self-learning to organization management
- 1986 **Electronic engineering degree from ENSEA** with telecommunication option
- 1983 **Preparatory class for high scientific school** with ENSAM admission
- 1983 **High school diploma E** (scientific and technical) with cum laude distinction

## *Languages*

- English: Professional – few practices.  
Training course (two weeks) in David Game College in London.
- German: First school foreign language, not used for twenty years.

## *Others*

- Diving instructor** (E2 FFESSM – 1 star CMAS): supervisor in diving club “Sartrouville Plongée”.
- Reserve Officer**: electronic telecommunication instructor in French air force school for NCOs at Rochefort/Mer.