

Massimo Santi (BEng, MSc)

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Nationality: Italian

DoB: 19/10/1967

Marital Status: Married

Security Level: SC obtained in the past



Executive Summary

A highly motivated professional with 25+ years of experience in delivering major infrastructure projects across defence and transportation sectors. Expertise in **programme management, engineering management**, and **systems engineering**, with a strong track record of managing projects from concept to operation. I believe integrity, respect and commitment are key ingredients to work collaboratively in multidiscipline teams to achieve successful outcomes.

Key Skills and Experience:

- Proven leadership in managing complex projects, ensuring high-quality delivery on time, within allocated budget, and to the required specifications.
- Extensive experience across the entire project lifecycle—from bid stage to decommissioning of the service/system (including design, construction, integration, test and commissioning).
- Expert in defining and implementing engineering processes that ensure successful project delivery, focusing safety, risk management, and seamless cross-discipline integration.
- Strong planning and execution skills, including defining clear requirements and scope of work while maintaining transparent communication with stakeholders (clients, regulators, subcontractors, etc.).
- Excellent understanding of contract administration, budget management, procurement within Design & Build contracts.
- Skilled in driving team motivation, engineering management, and ensuring the integration of engineering disciplines throughout the project lifecycle.

Over the years my main objective has been the implementation of a holistic approach to the delivery of complex projects throughout the lifecycle whilst enabling organisations to create, engage, transform and optimise their capabilities in order to deliver successful outcomes. My area of expertise is systems engineering applied to projects to reduce complexity and improve efficiency. I believe integrity, respect and commitment are key ingredients to work collaboratively in multidiscipline teams. My passion is the implementation of System Integration which in my view is the combination of Project Management, Project Controls, and Systems Engineering methodologies used to enable better information sharing and allowing teams to clearly understand the scope of the works and the critical risk points that must be mitigated and managed.

I am proud to have worked on many projects across different countries and diverse industries and companies. I strongly support the continuous improvement applied to learning, and working with many people of diverse backgrounds has given me the opportunity to learn and improve myself in many ways.

The following sections will provide an overview of my skills and experience working on major infrastructure projects.

Core Competencies

▪ Bidding & Tendering Management	▪ Systems Engineering Management	▪ Design Management
▪ Programme / Project Management	▪ Systems Integration Management	▪ Technical Reviews Management
▪ Risk & Value Management	▪ Interface Management	▪ System Assurance Management
▪ Project Controls	▪ Requirements Management	▪ RAM & Safety Management

Core Competencies

<ul style="list-style-type: none"> Product Lifecycle Management 	<ul style="list-style-type: none"> Verification and Validation Management 	<ul style="list-style-type: none"> BIM Process Management
<ul style="list-style-type: none"> Processes Development & Improvement 	<ul style="list-style-type: none"> Configuration & Change Management 	<ul style="list-style-type: none"> Mentoring and Coaching

Skills

<ul style="list-style-type: none"> Experience in conducting sensitive negotiations in the language of the Customer and the end user. 	<ul style="list-style-type: none"> Experience in the introduction of new techniques and ideas into projects producing measurable improvements. 	<ul style="list-style-type: none"> Experience in reviewing and approving management strategies and negotiating on the issue of complexity.
<ul style="list-style-type: none"> Experience in CMMI model applied to organisations to enable growth and improvement of quality. 	<ul style="list-style-type: none"> Experience in Six Sigma tools and implementation to eliminate waste and rework within projects. 	<ul style="list-style-type: none"> Experience in authoring Contracts, Strategies, Plans, Procedures, Reports at any phase of the lifecycle.
<ul style="list-style-type: none"> Great Team player with proven excellence in leadership and motivation skills and mentoring younger engineers. 	<ul style="list-style-type: none"> Experience in reviewing, advising on and approving documentation and functional analysis. 	<ul style="list-style-type: none"> Excellent problem solving and trouble shooting skills.
<ul style="list-style-type: none"> Strong relationships building at all levels of management, both internally and externally (i.e., Customers and Suppliers). 	<ul style="list-style-type: none"> Very good understanding of different Railway systems (Heavy Rail, Medium Capacity Rail, High Speed Rail, Monorail) and associated Power distribution, Rolling Stock, Track, Comms, Signalling systems. 	<ul style="list-style-type: none"> Excellent understanding of the suitability of systems solutions along with demonstrated experience in reviewing and advising on them.
<ul style="list-style-type: none"> Strong verbal and written communication skills and good customer/supplier interfacing skills. 	<ul style="list-style-type: none"> Excellent working knowledge of the Systems Engineering lifecycle phases and processes. 	<ul style="list-style-type: none"> Experience in performing assessment reviews on projects and presenting the findings to the leadership team.
<ul style="list-style-type: none"> Particularly good understanding of Construction Design & Management Regulation. 	<ul style="list-style-type: none"> Particularly good understanding of Common Safety Methods Risk Assessment (CSM – RA) and Technical Specification for Interoperability (TSI). 	<ul style="list-style-type: none"> Good knowledge of a wide range of Standards: particularly EN 15288, 50126, 50128, 50129.

Professional Experience

Systems Engineering and System Integration Expert (East West Rail Programme)

- Feb 2026 – Consultant at EFA Engineering | London, United Kingdom

Systems Engineering and System Assurance Manager (LRT System)

- Sep 2023 – Mar 2024 Consultant at Barnard Flatiron LP (Joint Venture with WSP) | Calgary, Alberta, Canada

Systems Engineering and System Assurance Manager (LRT System)

- May 2022 – Oct 2022 Consultant at Colas (Joint Venture with Parsons) | Edmonton, Alberta, Canada

Systems Integration Manager (LRT System)

- Apr 2021 – Apr 2022 Consultant at HATCH (Joint Venture with WSP) | Ottawa, Ontario, Canada

Systems Integration Manager (Monorail System)

- Nov 2019 – Nov 2020 Consultant at Bombardier Transportation | Cairo, Egypt

Technical Director (High Speed Rail System)

- Sept 2017 – Oct 2018 Consultant at Mott MacDonald (Joint Venture with WSP) | Kuala Lumpur, Malaysia

Head of Technical Readiness (High Speed Rail System)

- July 2016 – Mar 2017 Consultant at High Speed Two | London / Birmingham, United Kingdom

Head of Engineering (High Speed Rail System)

- Mar 2015 – Jun 2016 Consultant at High Speed Two | London / Birmingham, United Kingdom

Design Assurance Manager (Rolling Stock System)

- Jan 2015 – Mar.2015 Consultant at Bombardier Transportation | Derby, United Kingdom

Programme Engineering Manager (Standard Railway System)

- Jun 2013 – Dec 2014 Staff at Network Rail | Milton Keynes, United Kingdom

Systems Integration Manager (London Underground System)

- Nov 2012 – Jun 2013 Consultant at Transport for London | London, United Kingdom

Requirements, Verification and Validation Manager (London Underground System)

- Nov 2007 – Sep 2012 Consultant at Transport for London | London, United Kingdom

Senior Systems Engineer (Radar System)

- Jan 2006 – Nov 2007 Consultant at NATS | Whiteley, Fareham, United Kingdom

Senior Systems Engineer (Aircraft System)

- Sep 2005 – Dec 2005 Consultant at Former Smiths Aerospace | Cheltenham, United Kingdom

Lead Systems Engineer - CMMI Process Improvement (Radar System)

- Feb 2004 – Mar 2005 Staff at Raytheon Systems Limited | Harlow, United Kingdom

Senior Systems Engineer (Radar System)

- Nov 1999 – Jan 2004 Staff at Raytheon Systems Limited | Harlow, United Kingdom

Project Engineer (Sonar System - Underwater Communications)

- Jun 1997 – Sep 1997 Staff at Heriot Watt University | Edinburgh, Scotland

Procurement Manager (Construction Materials Wholesale)

- Mar 1993 – Mar 1994 Staff at FASSI Edilizia | Bergamo, Italy

Production Manager (Electronic Manufacturing)

- Jan 1990 – Feb 1993 Staff at Radio Systems | Bergamo, Italy

Military Academy

- Dec 1989 – Dec 1990 SMIPAR Military Academy for Paratroopers | Pisa, Italy

Education & Training

▪ Project, Programme and Commercial Management - Mott MacDonald internal courses, United Kingdom	Sep. 2017
▪ Building Information Modelling - HS2 internal courses, United Kingdom	Feb. 2016
▪ Construction (Design and Management) 2015 - HS2 internal courses, United Kingdom	Sep. 2015
▪ Construction (Design and Management) 2013 - Network Rail internal courses, United Kingdom	Sep. 2013
▪ Introduction to NEC type contracts – Transport for London, United Kingdom	Aug. 2010
▪ PMP Certification – Project Management Institute, United Kingdom	Oct. 2009
▪ CMMI Appraisal Methods and Team Assessor - Raytheon Systems Limited, United Kingdom	Sep. 2004
▪ Systems Engineering for the 21st Century - RMCS Cranfield University, United Kingdom	Jul. 2004
▪ CMMI Model for SE/SW (Version 1.1) - Raytheon Systems Limited, United Kingdom	May 2004
▪ Six-Sigma (Green Belt) - Raytheon Systems Limited, United Kingdom	Jun. 2003
▪ Engineering Leadership Development Programme (ELDP) - Raytheon Corporate, U.S.A.	Jan. 2001 – Jun. 2003
▪ Requirements Engineering and DOORS – Raytheon Systems Limited, United Kingdom	Mar. 2000
▪ MSc in Communication Systems (Merit) - University of Kent at Canterbury (UKC), United Kingdom	Oct. 1998 - Oct. 1999
▪ BEng (Honours) Electrical & Electronics Engineering (2:1) - Heriot -Watt University, Edinburgh, Scotland	Oct. 1995 - Jun. 1998
▪ Diploma SCOTVEC (HNC) – Electrical & Electronics - Stevenson College,	Sep. 1994 - Jun.

Education & Training

Edinburgh, Scotland	1995
▪ Diploma – I.T.I.S. (Technical Institute of Electrical & Electronics) - Bergamo, Italy	Sep. 1982 - Jun. 1987

Miscellaneous

Languages	Italian (Fluent), English (Fluent), Spanish (Intermediate).
Computer Literate	Microsoft Project, Word, Excel, Power Point, VISIO and IBM DOORS.
Simulation packages	HTZ Warfare (radar), Matlab, Simulink, Labview, PTDS.
Hobbies	Skiing, Hiking, Reading, Cooking, DIY in general.