A. Mbang Sama

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Chief Digital/Engineer/Operations or Transformation Officer Profile

Strong networked, highly innovative, value-creation- and customer- centred professional with extensive experience leading research, IT/digital projects, business operations, engineering/manufacturing processes, and global transformation projects, with an aim to lead and inspire distributed staff and exceed organisational objectives.

Extensive experience in applied research and development of cutting-edge technologies and intelligent processes, elaboration of effective strategies, tools and systems, cross-business unit's alignment, and implementation to meet overall business, customer and user needs.

Demonstrated expertise in modern leadership, organizational skills, intercultural skills, employee inspiration, multidisciplinary and distributed staff empowerment and performance analysis and the implementation of training programs to achieve operational excellence.

Highly agile with the ability to solve imminent problems, identify opportunities for improvement and create new scalable and disruptive business models. Articulated and refined communicator fluent in Bulu (mother tongue), German, English and French.

Highlights of Expertise

- Industry 4.0 and Digital transformation
- Advanced Digital Engineering in Design & Manufacturing
- Lightweight Materials, Manufacturing and Machining Technologies, Tooling, Robotics,
- AI, Intelligent CAx Methods & IT-Systems
- Life-Cycle Analysis
- Inspirational Leadership & Development
- Customer Journey & Service Oriented Methods
- Organisation Transformation/Change
- Agile Mindset & Agile Methodologies
- New Business Models Development
- Innovation Management & Research Roadmaps

Recent Career Experience and Achievements

Mercedes-Benz Operations

Manager Digital Interior Vehicle Assembly & Digital Production Validation, QM/AFED (2020 to Present)

Ready for testing, ready for production, ready for customer: Manage digital validation of the vehicle engineering with regards to production and voice of the customer, ensuring the product maturity level and quality objectives across the creation process; Supervising the transfer of know-how towards the target plants to ensure the ramp-up in the plants.

Mercedes-Benz Operations

Manager Digitalisation / Simulation Production Load Cases, TF/BMD (2018 to 2020)

Setup a new team with a new portfolio of tasks, performed digital simulation of the overall vehicle with regards to production load cases in body in white, painting and assembly for earlier digital validation with RD, including material and their manufacturing specification. Developed new methodologies to validate the assembly of new batteries and electric vehicles platforms. Former topics covering robot cell programming, assembly fold simulation, design of factory layout and material flow simulation.

- Improved operational performance/productivity of car lines by reducing development of hardware prototypes.

Mercedes-Benz Operations

Continued…

Manager Industry 4.0 & Use cases for Smart Factory & Supply Chain, TF/VDF (2016 to 2017)

Managed worldwide screening and know-how building around digitalisation technologies, such as Big Data, AI, VR/AR, Blockchain and IoT and related new business models for Mercedes Operation. Improved operational effectiveness by introducing use cases in smart manufacturing, smart supply chain, digital twins, robotics/autonomous systems, smart maintenance methodologies to fulfil operations requirements, resolved issues, and provided strategic solutions. Formulated digital solutions to effectively monitor use case processes, share insights, and train individuals.

- Established concrete digitalisation visions/goals and roadmaps for each value stream of Mercedes-Benz Operations (Body in White, Assembly, Paint shop, Die & Tooling, Production Planning, Quality management)
- Managed and partially initiated +230 industry 4.0 use cases, such as Big Data/AI technologies, IT connectivity infrastructure, and new business models across manufacturing/supply chain processes and all plants.

Daimler Group – Leadership 2020: Company-wide Transformation Program

Global Corporate Product Owner Swarm (Agile) Organisation, Daimler (2016 to 2017)

Directed company-wide strategic organization transformation program to an agile one (swarm organization), and staff members with an aim to accomplish ambitious company transformation objectives. Promoted new leadership principles and new game changers transformation process as well as established a positive leadership and cooperation culture across the company. Launched a new swarm organisation architecture that includes governance & communication system, HR regulations, monitoring of business strategy, agile operational methods, and agile mindset culture.

- Executed more than 300 new innovative swarm organisation units across Daimler worldwide (e.g Mercedes-Benz Experience unit in China, Truck swarm in Brazil, Silicon valley, Singapore, South Africa, etc.)
- Mentored and coached multiple teams in the development of new company business products and to improve direct customer experience (UX APPs in China, IT, Moovel, Q-Live in MO, etc.)
- Trained +2.3K employees with new agile mindset and +100 senior/executive managers in digital and agile leadership.

Mercedes-Benz Operations

Manager Manufacturing Technologies, Industrialization, Innovation & Change Management, TF/BM (2008 to 2015)

Managed the industrialisation, digital validation processes and the digital engineering of manufacturing tools and equipment. Supervised machining, shop floor, and robot cells operations as well as implemented effective strategies to lean and automate systems. Introduced a Manufacturing Executive System. Steered strategic IT and digital projects with other departments such as press shop and RD. Managed tooling supplier network worldwide. Drived the change management program of BM.

- Decreased tooling manufacturing timeframe from 9 to 4 months and saved 50 % costs of typical dies/tools.
- Acknowledged for extending in-house manufacturing capacity to 25%.
- Reduced tools development and engineering, timeframe of cutting tools from 16 to 4 weeks and drawing tools time period from 9 to 2 weeks.

Career Experience and Achievements in R&D and others

- *as* ***Corporate R&D Program Lead - Integrated Design & Production Planning,***
  (Joint project Daimler Research & Mercedes R&D (2006-to 2008):
  - *Project-Headcount 48;*
  - *Introduced novel standardised Body in white platform templates for all C-E-S classes of Mercedes-Benz Cars (Standardized and parametric reuse-templates such as Side walls, fenders, Doors, Lift gates, Floor panels, roofs, etc.) – Patent.*

- *as* ***Corporate R&T Program Lead–Advanced Digital Engineering in Product development and Manufacturing*** *(Project including Mercedes Car Group, Chrysler Group & Mitsubishi Corporation, 2001 to 2005):*
    - *Project-Headcount 41; DaimlerChrysler Research Award; Several patents*
    - *Developed and introduced new Design Methods & Tools and Manufacturing Concepts (Welding, Forming implemented in C-Class car project*
    - *Developed and implemented a standardized library of design elements needed for all passenger cars and powertrain, a feature library for body and for powertrain components*
    - *Implemented as from BR204; with a time reduction of time of 30% in design*

- *as* ***Coordinator/Project Lead of the H2020 EU-Project ALLIANCE*** *(Affordable Lightweight Automotive Alliance (2016 to 2019):*
    - *Budget 7,9 Mio €, 19 partners;*
    - *Developed 5 novel advanced (Steel, Aluminium, Hybrid); achieved 33% weight reduction over 100k units/year, Reduction of 3€/Kg;,*
    - *Developed 2 innovative Design Tools and advanced manufacturing Technologies,*
    - *Achieved 12 % Global Warming Potential (GWP) reduction; LCA-Tool; Drew a Vision on the future of Automotive Light weighting shared with the European commission*

- *as* ***Leader EUCAR Expert Group Virtual Engineering*** *European Council for Automotive R&D Brussels (2010 - 2018): 10 European OEMS; Research Roadmaps, 12+ new Research Programs in Design and manufacturing together with the EU commission defined (FP6, FP7, Horizon 2020, etc.);*

- *as* ***Scientific Assistant*** *– Programming a Neural Network Application for welded tailored blank components (for Technical Informatics & Mechatronics University Duisburg & Thyssen Krupp-Stahl, 2000 to 2001),*

- *as* ***Lecturer*** *at Karlsruhe Institute of Technology (since 2005) & Technical University Sofia (since 2018),*

- *as* ***Executive Coach*** *for Digital Leadership, Agile Organisation & Agile Methods (Design Thinking, Scrum, Customer Journey, etc.) at Daimler AG (2017 to present)*

Education & Credentials

Karlsruhe Institute of Technology, Karlsruhe, Germany

Doctor Engineer, Intelligent Integration of Product, Process and Resource in Automotive Industry

University Duisburg, Duisburg, Germany

Diploma Engineer Mechanical Engineering (with specialisation in Technical Informatics and Mechatronics)

Honours & Awards: Scholarship of the Government of Cameroon, DaimlerChysler Research Award 2002

Technical Proficiencies:

- Digitalisation technologies : Artificial Intelligence (Neural networks) ; Big Data Analytics, VR/AR ; IOT, Robotics
- CAD/CAE/PLM (3D Experience, CATIA, Siemens NX, ABAQUS, ANSA, Delmia, Enovia, Tecnomatix). MES/ERP (ProLeis, PSI, SAP)
- Software Programming (C/C++, Java, Mathematica, MATLAB, Neural networks)
- Agile Development Methods (Design Thinking, Scrum, Lean, DevOps, Customer Journey)
- Agile Organization Design (SAFE, Swarm, Agile, Liquid Organization) ; Six Sigma (Green Belt), LEAN

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