
TMC
PEOPLE
DRIVE
TECHNOLOGY
WE ARE A SPECIAL
BREED OF ENGINEERS

TMC PEOPLE DRIVE TECHNOLOGY

Agenda

1. About TMC

2. Our Expertise

PEOPLE DRIVE TECHNOLOGY

TMC Facts

KNOW WHERE YOU'RE HEADED

Technology House

Strategic Insourcing of scientists & engineers

>2.000 Employeeneurs in Europe (since 2000)

>200 in Italy

>75% MSc.

>15% PhD.

Employeeneurship Model
Stampa & TV

TMC PEOPLE DRIVE TECHNOLOGY

Corriere della Sera Martedì 6 Febbraio 2018

ECONOMIA | 33

Arriva l'azienda senza capo: tutti manager di se stessi

I casi all'estero e ora anche in Italia. L'impostazione? Squadre autonome, paritarie e responsabilizzate

Nessun capo. Nessun sottoposto. Nessun ordine dall'alto. Utopia? Non proprio. L'azienda senza (o quasi) manager esiste già. All'estero i nomi sono vari: si va dalla californiana Morning Star, nel mondo della lavorazione dei pomodori, all'olandese Buurtzorg, che invece si occupa di servizi e assistenza domiciliare; dalla britannica Matt Black Systems, specializzata nella produzione di interfacce uomo-macchina per l'industria aereonautica e areospaziale alla francese Favi, una fonderia. Realtà dei settori più disparati e dalle dimensioni molto diverse tra loro, ma che hanno un minimo comune denominatore: sono impostate su team autonomi, paritari e responsabilizzati (e con buoni risultati). Una caratteristica che, a quanto pare, si sta diffondendo. Di sicuro, secondo un'indagine di Boston Research Group, le aziende che seguono il principio della self-governance sono più che raddoppiate tra il 2012 e il 2016.

L'Italia non sta a guardare e anche da noi c'è già chi percorre questa strada. Per esempio Tmc, filiale di una multinazionale olandese che offre servizi di consulenza tecnologica: nel nostro Paese ha un organico di 16 persone, tutti ingegneri, tutti assunti a tempo indeterminato. E tutti manager di se stessi: la società li definisce «employeneurs» (unione tra employee e entrepreneur), ciascuno di loro è un mix tra un dipendente e un imprenditore completamente autonomo nelle proprie decisioni con accesso a tutte le informazioni, conti dell'azienda compresi, la trasparenza è totale. E anche la responsabilità è condivisa: "Ognuno è responsabile del proprio profit & loss" sottolinea il ceo Antonio Abadessa che, come tiene a precisare, lavora sul campo, dai clienti, come gli altri.

Di certo il tempo della gerarchia non è finito. Ma qualcosa sta cambiando. Non a caso, secondo un'indagine commissionata dalla specialista di consulenza e sviluppo organizzativo Asterys, su ottocento lavoratori (tra leader, manager e impiegati) di Paesi diversi, il nostro compreso, meno della metà immagina che l'azienda del futuro sarà fondata sulla piramide. «C'è molto interesse su questo tema» spiega Stefano Petti, partner della società, che negli scorsi giorni ha lanciato proprio un modello organizzativo (già «in funzione» sui suoi 30 collaboratori in Italia) senza supervisori e senza manager. Si chiama Aequacy. «Supportiamo le aziende che vogliono fare una transizione dalla struttura gerarchica a una organizzata su network di team autonomi e coordinati tra loro — spiega Petti. — E' un passaggio che, dal nostro punto di vista, favorisce l'innovazione, la collaborazione e la performance».

Iolanda Barera

Il caso

● Tmc, filiale di una multinazionale olandese che offre servizi di consulenza tecnologica, nel nostro Paese ha un organico di 16 persone, tutti ingegneri, tutti assunti a tempo indeterminato. E tutti manager di se stessi

A&F

Lunedì, 1 novembre 2021 la Repubblica

Rapporti
Qualità & mercati

Ricavi moltiplicati, boom di assunti 600 imprese trainano lo sviluppo

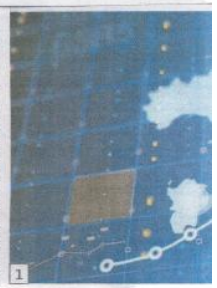
VITO DE CEGLIA

Criteri di selezione rigorosi, oggettivi e scientifici, per individuare quelli che l'Istituto tedesco qualità e finanza definisce "I campioni della crescita"

Seicento imprese, con un fatturato aggregato di 14,7 miliardi di euro nel 2020, in crescita del 50% rispetto al 2017, quasi 30mila posti di lavoro creati, in media più di 38 per

25000
LE IMPRESE
Quelle della long list da cui è partita la ricerca

rato minimo di 100.000 euro nel 2017 e di 1,2 milioni euro nel 2020; essere un'azienda indipendente con sede legale in Italia e cresciuta prevalentemente in modo organico, non avendo come modello di



(Employee + Entrepreneur)

- Individual profit sharing e permanent employment contract

Martedì 23 gennaio 2018
dalle 17.00 alle 20.00

L'IMPRESA
N° 3 2018
RIVISTA ITALIANA DI MANAGEMENT

N°3 MARZO 2018 € 6,90 . Il prezzo del quotidiano.
GRUPPO 24 ORE
www.limpresaonline.net

LA FORZA DI HOLACRACY
La governance che favorisce proattività, responsabilità ed execution

PEOPLE STRATEGY

MODELLI ORGANIZZATIVI/2. Dalla gerarchia all'auto-organizzazione: le sperimentazioni in corso

Nuove catene del valore

Dal modello Aequacy di Asterys all'esempio della start-up italiana della società di servizi di ingegneria olandese Tmc, sino ai "team autonomous" per l'innovazione di Sap. Tutti passi verso una profonda trasformazione

La filosofia del fondatore di Tmc

Qualche caso nel mondo, simile o assimilabile al modello Aequacy, esiste già, come ampiamente descritto su "L'Impresa" (v. l'olandese Buurtzorg o la francese Favi e ancora la C&S Wholesale Grocers, americana, con 14mila dipendenti, che ha ridotto i costi del 60% rispetto ai competitor). In Italia, un esempio di struttura piatta è la filiale della società di servizi di ingegneria olandese Tmc, organizzata secondo il modello dei team autonomi, con 1.100 dipendenti suddivisi in 12 società per tipologie di servizi, assolutamente accessibili anche per carriera. In Italia la start-up guidata da **Antonio Abadessa**

esempio, la gestione delle ferie, che nelle organizzazioni tradizionali vanno approvate dal capo e spesso creano malumore, è un falso problema, perché quando le scelte individuali impattano sulla resa del gruppo e quindi anche sulla retribuzione del singolo (rischio di lasciare scoperto un ufficio), ognuno si responsabilizza e cerca modi collaborativi per gestire le ferie con soddisfazione per tutti. Lo stesso atteggiamento riguarderà la gestione dei rimborsi spese, perché i costi impatteranno sui compensi stessi dei singoli. Alla base del nostro modello organizzativo c'è infatti la massima trasparenza su come incida il contributo individuale sulla media dei ricavi, in pratica su come pochi il mercato

TMC Italy is unique

Campioni Della Crescita


DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of

TMC ITALIA S.p.A.
VIA DELL'INNOVAZIONE 3 - 20126 MILANO (MI) - Italy

has been found to conform to the Quality Management System standards:

EN9100:2018 and ISO 9001:2015
(technically equivalent to AS9100D and JISQ9100:2016)

and has been audited in accordance with the requirements of EN 9104-001:2013 and ACCREDIA Technical Regulation RT-18.

Type of certification structure: Single Site

This certificate is valid for the following scope:

Design, development, production and integration of services in the Industrial, Aeronautical, space and defense Sectors.
Progettazione, sviluppo, produzione ed integrazione di servizi e sistemi in ambito industriale, aeronautico, spazio e della difesa.

Sector IAF:34

Certificate no.: 10000036457-MSC-ACCREDIA-ITA
Initial certification date: 10 August 2020
Issue Date: 10 August 2023
Expiry Date: 09 August 2026

Place and (re-)issue date: Vimercate (MB), 07 August 2023

ACCREDIA

For the accredited unit: DNV - Business Assurance, Via Energy Park, 14, - 20871 Vimercate (MB) - Italy

Zeno Beltrami
Management Representative

Certificazione 9100


Il sistema che ridefinisce il lavoro dell'ingegnere

Come i veicoli elettrici aprono il campo agli Adas

Automazione industriale e il magazzino del futuro

Una rete sicura affidabile e completa

Dagli apparati di bordo per aerei ai satelliti

LA REPUBBLICA MILANO & ROMA

TMC PEOPLE DRIVE TECHNOLOGY

EMPLOYENEURSHIP

A perfect match of stability and adventure. A combination of security of employment and entrepreneurship. Employeneurship has been received enthusiastically in several countries around the world. The model is based on five principles:

BUSINESS CELLS

Based on their field of technological expertise, they keep each other focused and up to date.

YOUNIVERSITY

Freedom to decide their own career path, but also give them proper guidance along the way.

INDIVIDUAL PROFIT SHARING

Share of the profits they help generate. Fully transparent and fairly rewarded.

THE ENTREPRENEURIAL LAB

A place where revolutionary ideas are born. The superlative of Employeneurship.

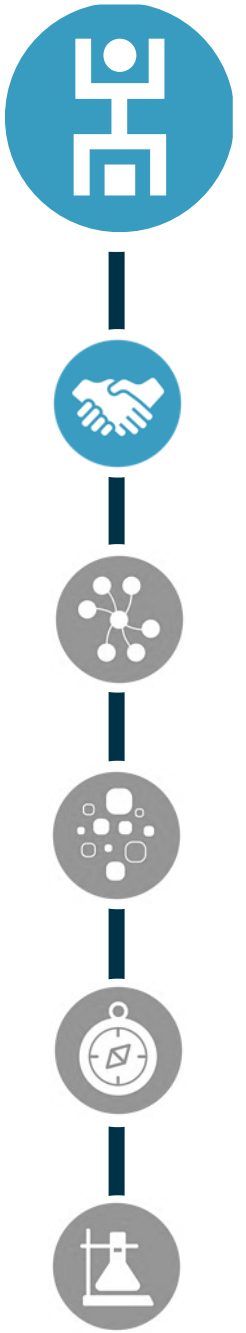
A LONG-TERM WORKING RELATIONSHIP

The security of a contract and dependable income.

LONG-TERM EMPLOYMENT

The best of both worlds: combining a secure income with the benefits of entrepreneurship

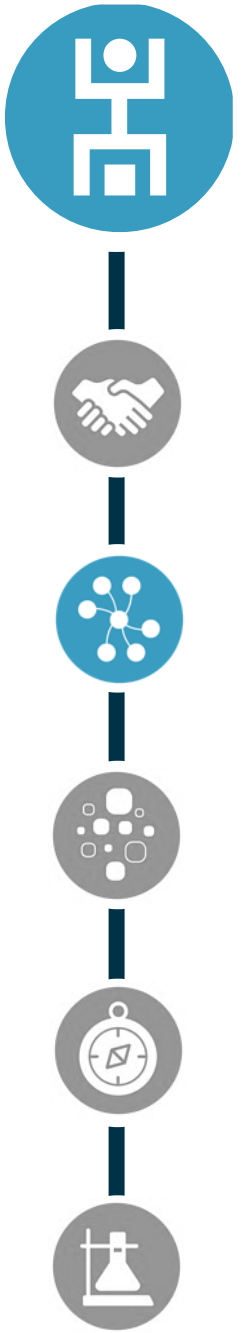
- All employeneurs join TMC with the security of a long-term contract and a stable source of income
- Employeneurs get the opportunity to work for a broad diversity of high-tech companies which offer a variety of projects and intellectual challenge
- If the employeneur is open to positions abroad, TMC also offers such positions and helps out with all necessary arrangements.



PROFIT SHARING & FULL TRANSPARANCY

Stimulate employee engagement and entrepreneurship

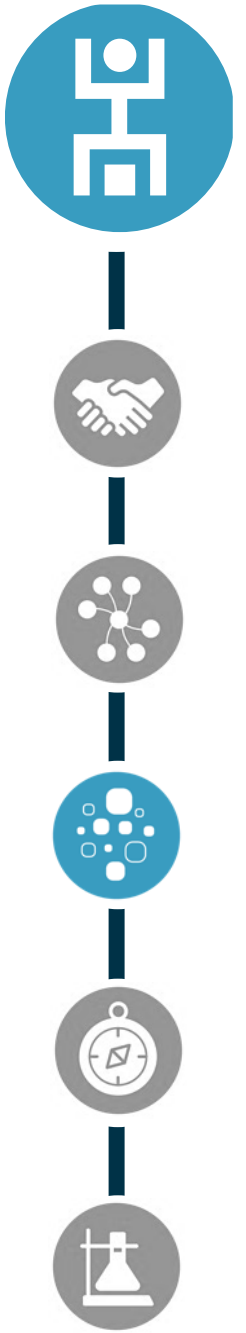
- Individual performance-based profit sharing, directly linked to assignments in addition to fixed salary
- A personalized HR-policy based on your preferences. E.g. holiday pay, extra leave days and supplementary pension payments.
- Full transparency on personal revenue and cost structure to provide full insight into their contribution to profitability



SPECIALIZED EXPERTISE CELLS

Highly educated, niche talent and deep technological expertise

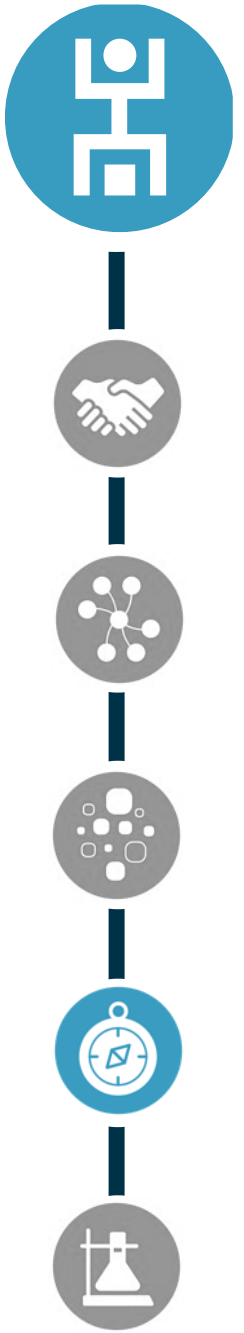
- Expertise cells focus on specific areas of expertise, driving thought leadership and stimulating knowledge sharing
- Autonomous expertise cells drive the business; they are the link between customers and tech talents
- Within the cells there is a vibrant community around technology and innovation with like-minded professionals who are involved through (quarterly) meeting and pizza/impact sessions



YOUNIVERSITY

Training & coaching

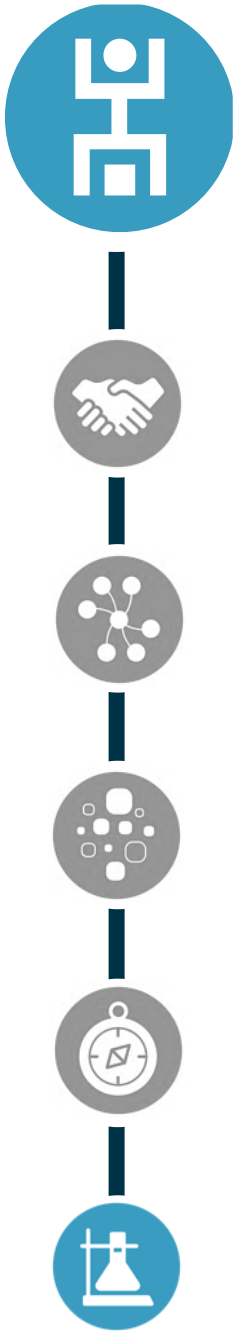
- External professional coach: coaching for personal development and guidance in career
- Personal budget for coaching and training
- Mentoring by senior colleagues
- TMC Compass: Initial personal assessment which is used as basis for employeneur's coaching and development
- Bespoke training program: onboarding, study budget and a wide variety of training sessions in-house and externally



ENTREPRENEURIAL LAB

Stimulate innovation and entrepreneurship

- Unlock out-of-the-box thinking and innovative ideas as well as entrepreneurial skills
- Room to play – in a workshop, financially and even in time if a project has enough potential
- Multidisciplinary teams – team work makes the dream work
- Experience entrepreneurship next to the security of a job
- Lab projects in some occasions even lead to a start-up



‘I’m convinced that at TMC I can find the perfect environment for both professional and personal development.’

‘A human-based organization with interesting and challenging projects, a pleasant family-like company culture and opportunities for self-development through training and coaching.’

INDUSTRIES

WE KNOW THE NEED OF COMPANIES THAT WANT TO STAY AHEAD

We create the great conditions for tech talents so they can add value to ambitious and innovative companies all over the world. To realize your ambitions, access to knowledge and expertise is essential for continuity and innovation strength. We meet this need by providing the tech talent you need, whenever you need it.

But our employeneurs offer more. Because of their entrepreneurial spirit they see across borders and provide creative solutions to your challenges.

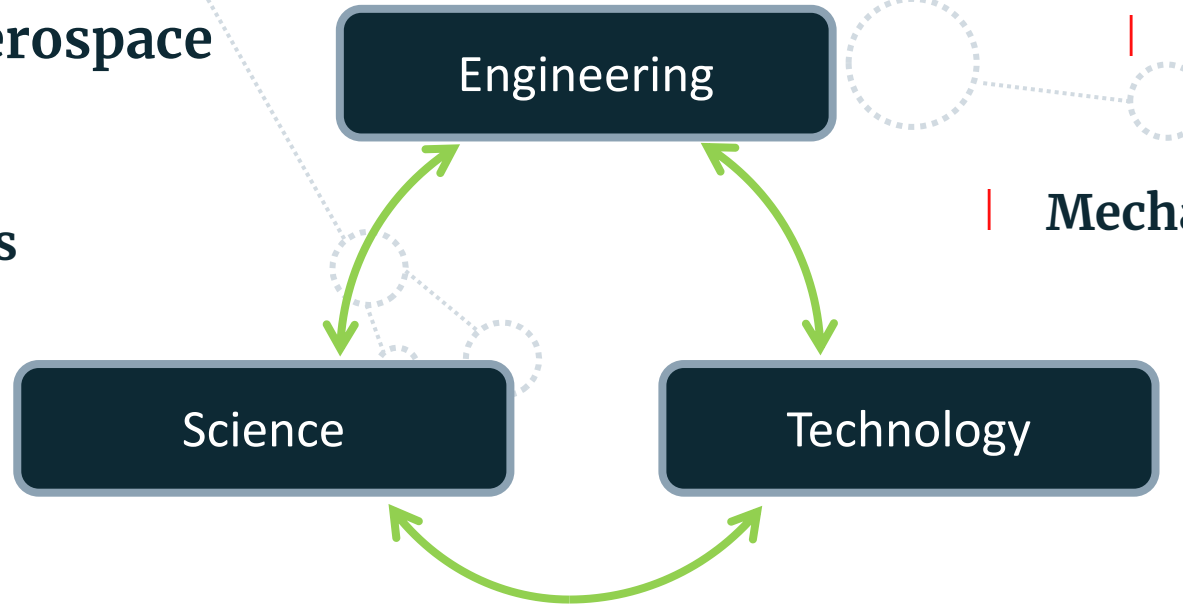
- Aeronautics
- Agri, Food & Packaging
- Automotive
- Chemical & Process industry
- Construction & Infrastructure
- Energy & Renewables
- High-tech systems & Machinery
- Insurance & Financial services
- Life science & Health care
- Maritime & Offshore
- Rail & Transportation
- Space & Defence
- Telecommunication

PEOPLE DRIVE TECHNOLOGY

Agenda

1. About TMC
2. ***Our Expertise***

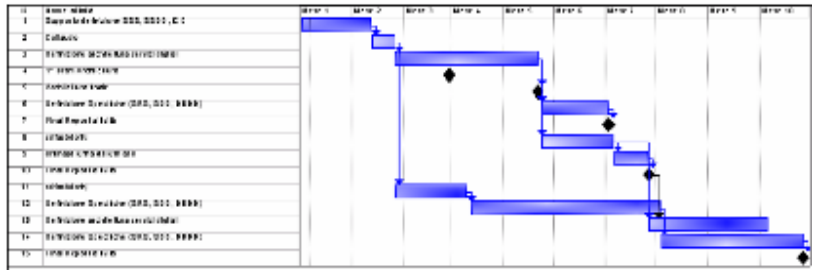
Main Areas of Expertise



- Electronics
- Field Services
- Manufacturing Support
- Supply Chain & Operations
- Aerospace
- Automotive
- Industry & Energy
- Chemicals
- Mechatronics
- Internet of Things
- Nanotechnology
- Industry 4.0
- Physics
- Digital Transformation
- BI & Analytics
- Big Data
- Industrial Operations
- Cloud
- Data Lake

Management Consulting

- Program and Project Management
  - Monitoring of Project advancement
  - Time and Cost planning
  - Production LOB
  - WBS definition and monitoring
- Risk Management
- Cost Controlling - VALCOM ©
- Activity and subcontractors management in the design, industrialization and production cycle
- Assessment, definition and implementation of process improvement plans
- OPM3 © (Organizational Project Management) standard application
- Supply Change Management



PROCUREMENT	SUPPLIER QUALITY / INDUSTRIALIZATION	CRISIS MANAGEMENT
• Management SC non conformity due to missing parts	• supplier quality on entire PLM	• Temporary management on supplier production plant
• Management of supplier goods/items deliverable accordingly to Production plan	• Non conformity management (PDCA, 8D)	• Recovery / corrective action on processes (quality / procurement)
• Definition and support activity in storehouse / handling and layout	• Continous improvement (6 Sigma, SPC, DOE, FMEA, etc)	• Lean manufacturing approach
• Orders management	• Management tools for improving supplier KPI (JQS, QAF, APQP, etc)	
• Sub - supplier management	• Retrofit management of supplier on trainmaker site/deposit	

System Engineering

SYSTEM SPECIFICATION
- Functional specification
- Technical specification
- Interface specification
- Requirement Management

SYSTEM ARCHITECTURE
- Architecture design
- Functional design
- Technical design
- Interface design
- Performance analysis

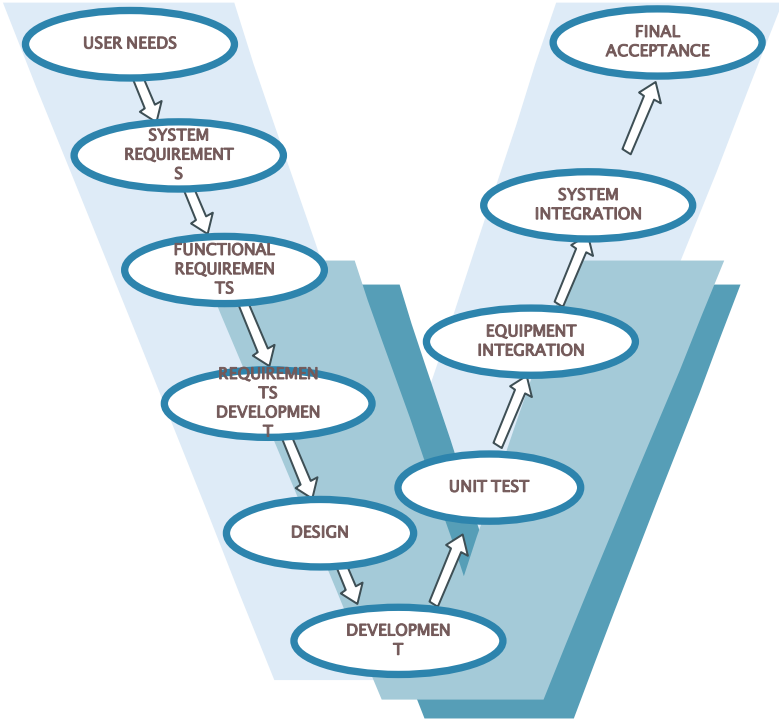
IV&V
- System Integration
- Multi-system integration
- Requirements verification/validation
- Environmental qualification
- Certification/Homologation
- Standards application

MODELIZATION (MBSE)
- Modeling of the specified system behavior (functions and sub-functions) in normal and failure cases
- Modeling of systems and components functions and their relationships to operations
- Modeling activities to support system requirements, design, analysis, verification & validation

PROTOTYPING, PRE-SERIES & INDUSTRIALISATION
- Qualified Supply Chain for EN9100
- Prototype realization, qualification & pre-series

2020 Certified

ISO 9001:2015
EN 9100:2018



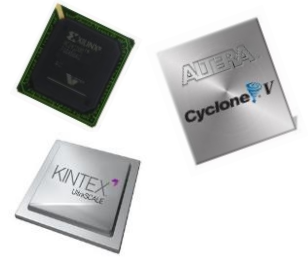
Digital Design

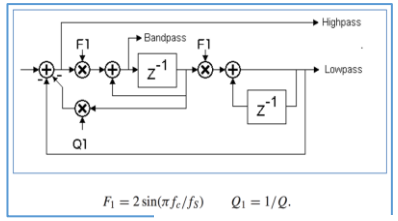
DESIGN

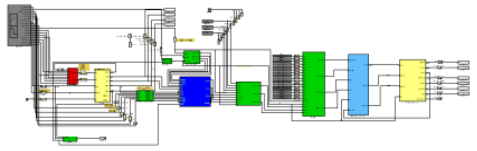
- Complete design from requirement analysis to board integration Design, Verification and Validation process compliant to DO-254 or **ECCS-Q60.**
- Complete management of the document workflow

DEVELEOPMENT

- FPGA Design with experience on all the main Suppliers
- Experience on the Rad Hard Device for Space application
- Complete Mentor tool chain and IDE of the main Supplier
- Firmware solutions in embedded system.
- Wide range of demand from 8 bit microcontroller up to linux and windows device drivers.
- Model based design approach. (Mathworks\Dspace toolchain)
- Complete RTL Design
- Documentation for Design and V&V
- Integration on board







DESIGN ENTRY & IMPLEMENTATION

- MENTOR GRAPHICS : HDL Designer
- XILINX : ISE
- ALTERA : QUARTUS II
- MICROSEMI : LIBERO IDE,

VERIFICATION & CODE COVERAGE

- MENTOR GRAPHICS : ModelSim

Software Engineering

Embedded
To design/develop full-stack SW app. (from BSP up to HMI), for different HW targets
(µ-controller, PC, workstation).

Safety Security
To release high integrity apps and all the documentation according to safety/security standards.

Model Based
To auto-generate source code from sys/uml models, functional blockset, controls and algorithms.

Digital Signal and Image Processing
To design advanced signal, image processing and machine learning algorithms, to extract quantitative and qualitative information from the real world.

Control Systems
To design and develop advanced algorithms to control physical plants and to identify plant model parameters.

Human Machine Interface
To conceptualize, design new cross-platform and enhanced HMI according to use cases and ergonomic guidelines.

Enterprise Mobile Application
To have the same functionality delivered by customer web portal via mobile device like phone or tablet with secure connection.

Testing and Verification
To verify and test software statically and dynamically versus SWR specification.

Big Data & Analytics
Big Data, Data Governance & DWH, Reporting, Data Visualisation, Analytics & Machine Learning

Hardware Engineering

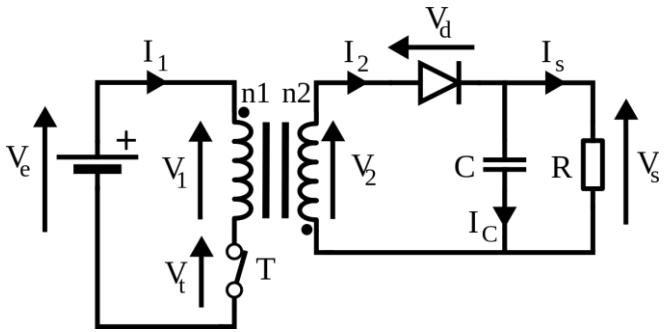
Analogue Electronics Design
Design HW for different sectors and applications

Power Electronics Design
AC/DC – DC/DC – DC/AC converters design

Test Equipment Design
Design Test Jig & Test Equipment for different use

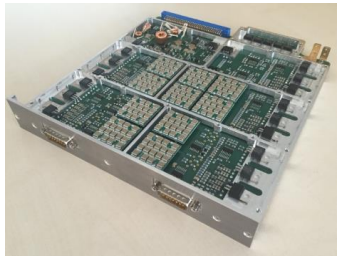
Design
To design respect and according to different requirements:

Electrical
Mechanical
Thermal
Manufacturability
Design Assurance Guidance/ Standard



Testing – Integration – Production
To debug e test and integration in complex system

Harness design & production
Validation & CE compliance

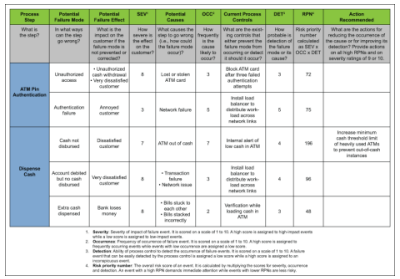


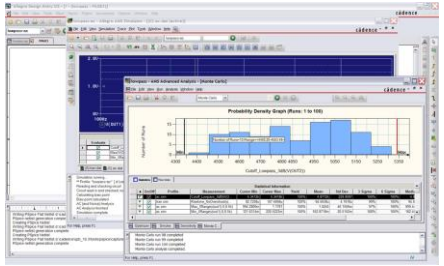
Hardware Engineering - Analysis

Analysis in design phase

To support and validate the design different analysis can be provide:

FMEA
FMECA
Reliability (Part Count / Part Stress)
PSA (Part Stress Analysis)
WCA (Worst case Analysis)
Radiation
Monte Carlo





Schematic entry & PCB Routing Design

To Design electronic circuit, to define routing guidelines.

Signal Integrity
Power Integrity
EMC

cadence

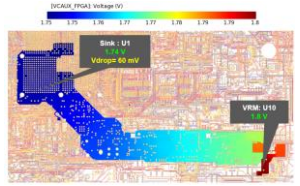
LabVIEW

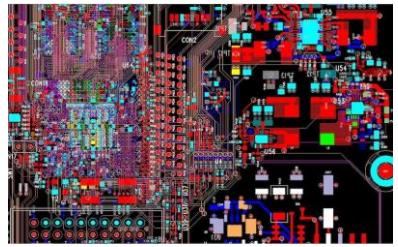
Mentor Graphics

OrCAD
CADENCE PCB SOLUTIONS

PXI

NATIONAL INSTRUMENTS





ZUKEN

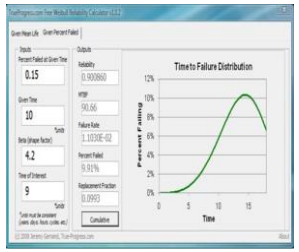
RAMS & Integrated Logistic Engineering

Reliability, Availability, Maintainability

- Reliability, Maintainability and Testability (RAMT) Analysis, according to the relevant standards (i.e. MIL-HDBK-217F Notice 2, NPRD95/2000, MIL-STD-472);

Safety

- Safety Design Process: definition and development of Safety process according to the relevant standard
- Safety Implementation: implementation of all the safety tasks defined by the Safety process:
  - PHA, FHA, IHA, O&SHA
  - FMECA, FTA/CCF, Risk assessment
  - SSA, Hazard Log, Safety Case
  - Support to provide/check evidence for Safety Assessment



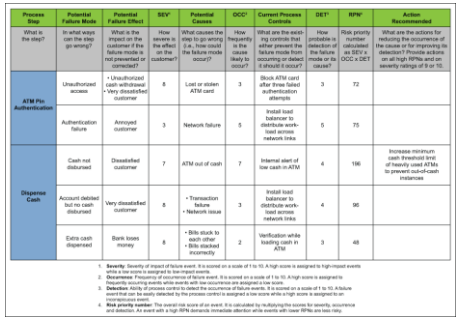
Integrated Logistic Support dimensioning

- RCM, LORA, Maintenance Plans, MTA, LSA, LSAR, LCC
- Optimized allocation and dimensioning of Spare parts stocks
- MIL-HDBK-217F, MIL-HDBK-338, MIL-STD-721C, S1000D

by Systecon opus

In Service Support

- Obsolescence Planning, analysis and Management
- FRACAS



Mechanical Engineering

FEASIBILITY ANAYSIS → PRELIMINARY DESIGN → FINAL DESIGN → PROTOTYPING & TEST → INDUSTRIALIZATION

System Engineering & Prototyping

- Mechanical System Engineering
- Mechanical Design For Electronics
- Prototyping (Design & Manufacturing)
- Integration & Testing
- Composite & Advanced Materials
- Macro & Micro Structure
- ECO-Design

Virtual Design (CAD)

- Preliminary studies
- Digital Mock-up Methodology (Erg. & Env.Requirements, Volumes Interfaces, Weight minimizing, Cost eng …)
- Style,C,B,A Class Level
- 3D & 2D CAD Modelling
- SOP & Product Data Management (PDM), included DMU
- Wiring & Harness/Routing

Virtual Validation (CAE)

- **Structural analysis**
  - Implicit analysis (static, modal, frequency response, dynamic analysis)
  - Explicit analysis (shock, high speed impact, low speed impact)
  - Multibody analysis (rigid and flex body mechanism, tribological phenomena)
- **Fluid-dynamic analysis**
  - Steady state and transient analysis
  - Thermo-fluid-dynamic analysis
  - Chemical reaction analysis
  - Change of phase analysis
- **Acoustic analysis**
  - Aero-acoustic analysis
  - Vibro-acoustic analysis

C&R TECHNOLOGIES®
SOLIDWORKS
ANSYS FLUENT
CATIA
ABAQUS
PLM Software SIEMENS NX
FEMFAT software FINITE ELEMENT METHOD FATIGUE
ptc
FloTHERM®
AUTODESK® AUTOCAD®
Altair
CD-adapco

Process and Industrial

Engineering

Construction & Commissioning

Operation & Maintenance

Decommissioning

Expertice On

SAFETY AND RAMS

- Risk & functional safety studies and quantitative risk analysis
- Reliability and Maintenance Engineering

ENTERPRISE PERFORMANCE

Project Management, Supply Chain performance, operational efficiency, continuous transformation management

INNOVATION MANAGEMENT

Developing a new strategy based on innovation and increasing economic value creation

INFORMATION SYSTEMS

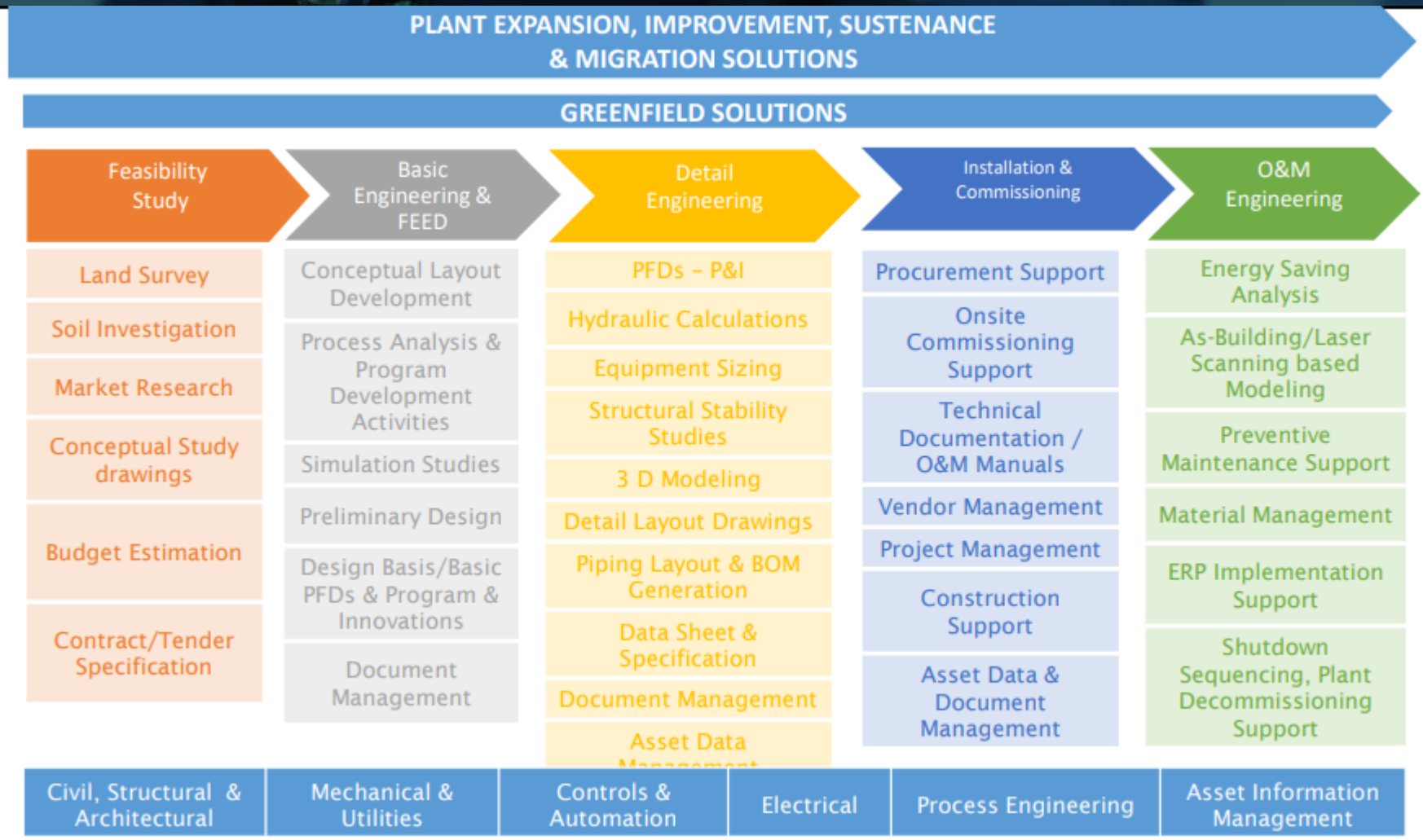
Custom App. Development; Industrial Systems; Gas logistics; Petrochemical Labs management; Upstream operations simulation tools

ENGINEERING & CONSTRUCTION

Construction and Commissioning; Civil and oil infrastructure engineering; Mechanical Engineering; Material expertise ; Process engineering; I&C; Electrical Design for facilities

TMC PEOPLE DRIVE TECHNOLOGY

Plant Eng



TMC PEOPLE DRIVE TECHNOLOGY

GRAZIE

PEOPLE DRIVE TECHNOLOGY

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