



LA PASSIONE SI MISURA





Alberto Alberti and a.Engineering S.r.l. Presentation

January 2013

a.Engineering S.r.l.



- n **a.Engineering** was founded on 2004, as a studio specialized in the motorcycle sector, then it expanded his activity also in other sectors. Since 2006 it started the activity of “Motorcycle Handling Boutique” introducing first in Italy the 3D dimensional chassis measurement with GMD© Computrack Technology and joint on GMD© Computrack Network.
- n Alberto Alberti is the founder and administrator of **a.Engineering**, he has over 30 years of experience on designing motorcycles and in the conduction of projects.
- n He was project leader of several vehicles including: **Aprilia** Caponord, Mana, Supermotard 50, RX50, Pegaso 650, Pegaso 125, Tuareg Wind 125, **Moto Guzzi** MGS01 Corsa, **Cagiva** Elefant 650, Elefant 125, T4 350 and 500, Cruiser 125 and many others. He was Cagiva’s technical chief for the Paris Dakar Rally in 1986 and 1987, in 1989 for Aprilia and in 1992 for Yamaha, participating in the races.
- n He also had an experience as a Industrial Director for 4 years in a medium firm that produced culinary items in stainless steel. Before founding a.Engineering he created, in 1998, and then directed the Technical Area of the Aprilia detached in Switzerland, where were engineered some project of new big displacement motorcycles.
- n Born in 1955, in 1980 he got his degree in Mechanical Engineering at the Polytechnic of Milan.

a.Engineering s.r.l.



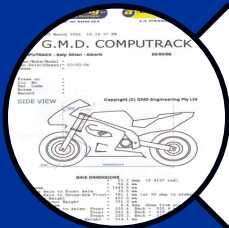
Engineering studio, design firm, technical and managerial consulting, project management (Project Leader, R & D Director) in the automotive industry, specializing in motorcycles



Management consulting studio of R&D area, organization and improving efficiency R & D, implementation processes and procedures for new product development, (GANTT, FMEA, KPI. Targets Project, Design Review, Design to Cost, MTA)



Moto Boutique: store retail helmet (top 30 brands), clothing and motorcycle accessories



Motorcycle Handling Boutique: Specialist in the chassis optimization. Measurement and alignment geometry of motorcycles with GMD Computrack technology . Sales, service and setting of suspension



Engineering studio
mission: supply the client a
complete services from the idea to the
mass production

Portfolio 2009 > 2012

SCAM Trucks

Alberto Alberti introduced and was in charge of the process of developing new product and the director of the prototyping and testing department



SYM Taiwan 2012



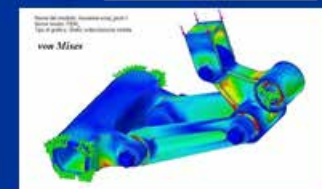
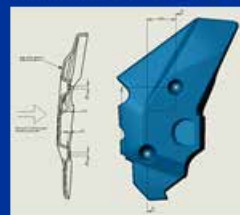
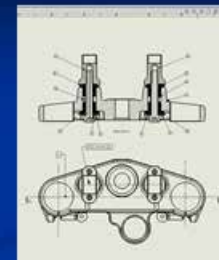
Projects Husqvarna Motorcycles (BMW group)



a. Engineering 2004 > now

Founder and owner

- An engineering and consultancy company for design, prototype construction and industrialization specialized in the motorcycle industry
- Founded in 2004
- Structural Finite Element calculation





Portfolio 2004 > 2008

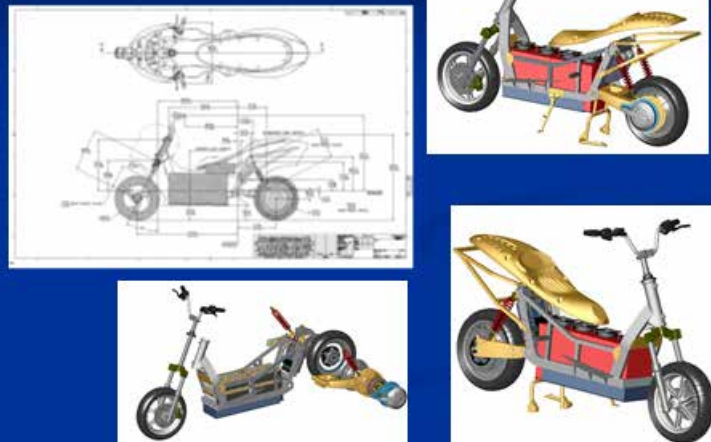
Aprilia Pegaso Factory



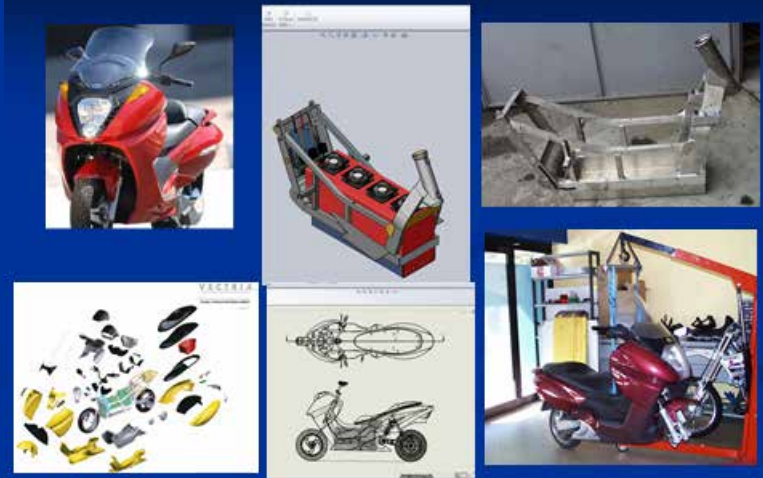
Motocross 450 cc with carbon fiber frame



Vectrix



Vectrix Electric scooter



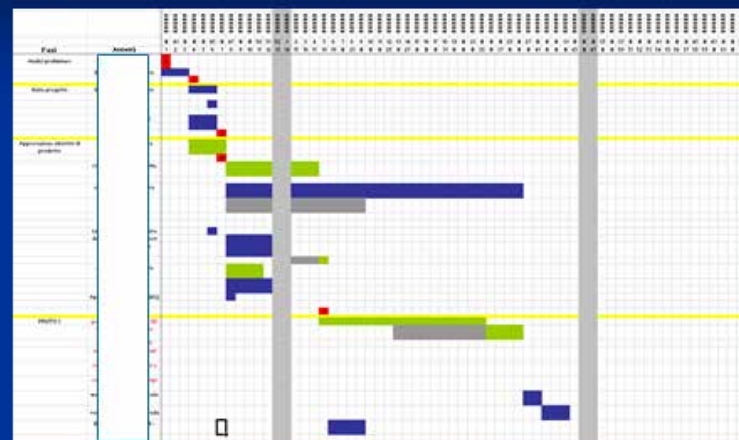


a.Engineering Management
consulting studio of R&D area

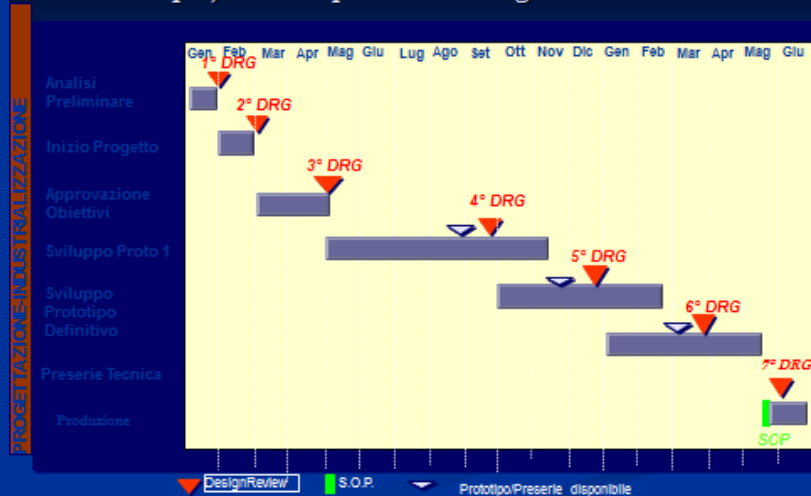
Project Work tools

Project Targets

GANTT



Phases new project development and Design Review



FMEA

Failure Mode and Effect Analysis



Moto Boutique



CASCHI
le 30 migliori marche

**sconti fino
al 35%**

VISITATECI

ai clienti, su richiesta, un omaggio

**abbigliamento
accessori
sospensioni**

officina:

- Allineamento, messa a punto e ottimizzazione ciclistica
- Misurazione ciclistica moto (tecnologia GMD Computrack)
- Revisione e taratura sospensioni
- Verifica della vostra moto dopo una caduta o un incidente



C.so Cairoli, 98 - VERBANIA-INTRA
Tel. 0323 40.39.92 - www.aengi.it





Motorcycle Handling Boutique with GMD Computrack technology



It's the most popular in the U.S.

It's Simple to use

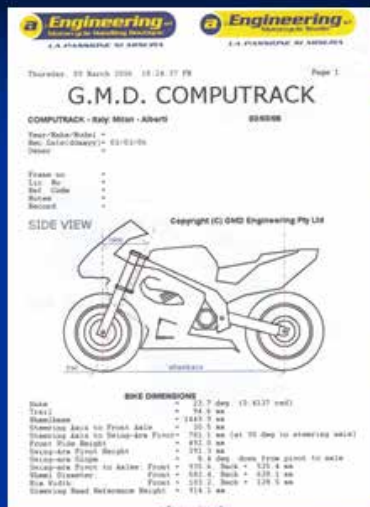
High accuracy

1 hundredth of a millimeter

2 arc seconds grade

Repeatability and Accuracy

"Sweet numbers"



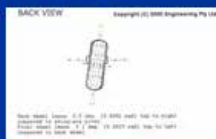
■ Optimal chassis geometry

- for every motorcycles
- for each pilot

Misalignment

■ Misalignment = handling problems

- Movement of the twisted suspension
- Asymmetric behavior of the bike
- Uneven wear of tires
- Worse Handling



Chassis Optimization

GMD COMPUTRACK, WHATIF.

Owner: ALBERTO ALBERTI

Model: XX

Year: XX

Frame No: XX

Serial No: 01/03/08

Code: 0-05

Notes: a Engineering srl.

Read File: allanfil.hnd, * Records. Data Type: geometry

All Data Copyright © GMD Engineering Pty Ltd.
Unauthorized duplication prohibited.

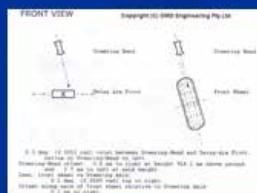
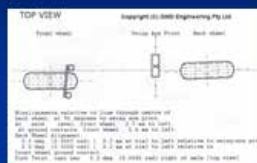
PARAMETER	INITIAL	LAST	NEW
Front Wheel Clearance	587.50	587.50	587.50
Back Wheel Clearance	627.62	627.62	627.62
Offset of Front Axle from Steering Axis	24.87	24.87	24.87
Length of Swing Arm	523.47	523.47	523.47
Delta (Swing Arm Pivot) to Steering Axis	801.56	801.56	801.56
Delta (Swing Arm Pivot) to Front Axle	886.24	886.24	886.24
Delta	24.42	24.42	24.42
Swing Arm Down Slope	13.26	13.26	13.26
Rate minus Swing Arm Down Slope	11.51	11.51	11.51
Swing Arm Front Height	841.17	841.17	841.17
Frontal	119.42	119.42	119.42
Wheelbase	1400.25	1400.25	1400.25
Front Side Height	859.00	859.00	859.00
Back Side Height (rate any change)	0.00	0.00	0.00
Change in Steering Wheel Angle in Frame	0.00	0.00	0.00

WHATIF CHANGES = 2

1. Front Side Height = 845.00

2. Offset of Front axle from Steering Axis = 30.00

- Function "what if"
- customizing the chassis geometry
- To perform the chassis geometry on new motorcycles
- To study the effects of the changes



Curriculum Alberto Alberti before the founding of a.Engineering 1991 > 2004

Aprilia 1998 > 2004

Project Leader and Director of the Technical Area of the

Aprilia World Service,



Caponord 1000 cc



Mana 1000 cc



RX 50 cc

Yamaha Racing Team 1991 > 1992

Technical and logistic Manager



Rally Paris Le Cap
1992



World Enduro Championship 1992



Aprilia World Service – Lugano (Switzerland)

I created and was the director of the Technical Area of the Aprilia World Service, which acted as a detachment of the Technical Area of Aprilia S.p.A. (Noale –Italia) for the development of new motorcycles of Aprilia and Moto Guzzi Brand

Moto Guzzi 2003

Project leader

MGS-01 1200 cc



BYRD S.p.A. (Belgarda Yamaha Racing Division), Lesmo (MI)

Technical and logistic manager of Yamaha Italia racing activities in the following sectors: African Rally Raids, Moto Rallies, Enduro, 125cc World Championship.

In 1992 Technical Director at Rally Raid Paris – Cape Town, following the race in aeroplane

Client assistance manager for Yamaha motocross models.

1989 > 1991

Aprilia Rally Paris Dakar 1989

Project Leader and Team manager



Aprilia S.p.A., Noale (VE)

Project leader, which was responsible for the achievement of goals for products specifications, of time and cost, and also responsible for the development, design and industrialization of some new models.

In 1989 he organized and was in charge of the participation of Aprilia in Paris Dakar Rally and followed the race on plane as team manager.

From 1990 he was in charge of the project leaders for all the enduro-trail and off-road models

Aprilia 1987 > 1991

Project Leader



50 cc



125 cc

Aprilia 1987 > 1991

Project Leader



600 cc



650 cc



1981 > 1987

Cagiva Rally Paris – Dakar 1985 – 1987

Technical manager and logistic support on the race



Cagiva Motor Italia S.p.A., Varese

From 1981 he was the road and bench test coordinator of new motorcycle models.

Then from 1984 he became Manager of R&D department, prototype building, vibrating bench tests, and on road tests. Expert in designing of frame and suspensions.

In addition from 1985 he also became technical manager of the racing department of Rally and Paris-Dakar Rally. In 1986 and in 1987 he raced in the Paris Dakar Rally in a car (1986) and truck (1987) as assistance for Cagiva-Lucky Explorer official team

Then in 1986 he was also Technical office manager and R&D manager for the chassis sector

Cagiva 1981 < 1987

Testing department manager > project leader



125 cc



Cagiva 1981 < 1987



350 cc
and
650 cc



Thanks for your attention

Grazie

a.Engineering s.r.l. - Moto Boutique
C.so Cairoli, 98
28921 Verbania Intra (VB) ITALIA
Tel. +39 0323 403992

www.aengi.it

info@aengi.it

ing. Alberto Alberti
mobile +39 320 326 4049
alberto.alberti@aengi.it