R E S C H K E

C O M P A N Y P R O F I L E

I M P R O V E M E N T O F R E S U L T S
M O D E R A T I O N & 5 M S Y S T E M

R E N T A P R O F E S S I O N A L ©

The ordinary gives the world its existence
but the extraordinary gives its value.

Oscar Wilde

O U R B U S I N E S S

Of utmost importance in any business is results-oriented action with the ultimate aim of improved efficiency.

More than ever before it is being recognized that project implementation produces substantially higher levels of success than merely carrying out studies. We have been applying the project implementation philosophy successfully since 1965 to assist our clients in attaining increased efficiency.

We are a private enterprise group of professionals without any hierarchy with many decades of experience as successful entrepreneurs.

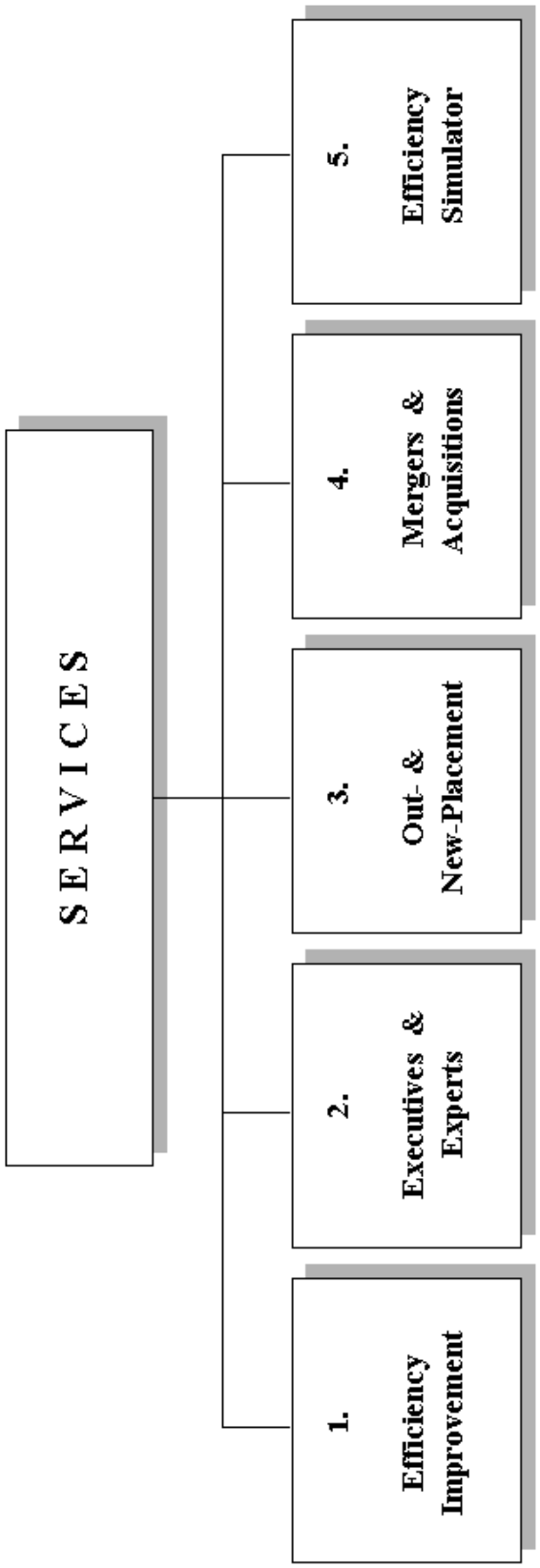
We operate worldwide for and with entrepreneurs and personnel of private companies in all areas, as well as with associations, institutes, governments, organizations and churches.

We appreciate cooperation with receptive clients who recognize the goal of improved efficiency, and are prepared to take the respective action to achieve it.

Qualifications and human qualities to ensure effective and efficient operating procedures are supplemented by expertise in a particular sector. We guarantee a symbiosis of concentrated know-how and an optimal price / performance ratio.

We are unsurpassed in assisting clients to attain meaningful increases in efficiency. This is accomplished by our specialists, who you personally select as moderators, working in close cooperation with you and your personnel.

You as a professional need professionals. Profit through professionals - from practice for practice. You receive from us, stand-by, the services of a efficiency professional in entrepreneurial and technical matters with wide experience in project implementation. You will enjoy the perfect cooperation and success with us.


S E R V I C E S
1. Efficiency Improvement
2. Executives & Experts
3. Out- & New-Placement
4. Mergers & Acquisitions
5. Efficiency Simulator

O U R P H I L O S O P H Y

Daily operations demonstrate that the "ratio of input to output" when efficiently used, produces more profit. Processing time reductions of at least 50%, increases in efficiency of up to 70% and gains in productivity of more than 50% are realistic. We guarantee the desired success through the measurability of your defined and established goals and the results of their implementation.

We provide you with profiles that assist you in selecting the ideal professionals as moderators from our group. These moderators will then lead your personnel through the efficiency improvement project from start to implementation.

The project coordinators and the project teams are designated by you from the beginning. This ensures that the work procedures and the results are dealt with jointly, and in particular are supported and accepted by the user, and will thus endure.

Operating procedures tailor-made to your requirements improve levels of efficiency thanks to intensive cooperation with your personnel already after a short time; meaning help for self-help including implementation.

Moderation of your personnel by our efficiency specialists ensures the quality of the joint project work. Our professionals pass on their long years of experience to your personnel, who will work out and implement the solutions themselves and gain the recognition for the success of the project.

Synergy results from teamwork and exploitation of internal know-how (self-help). Only an examination of the whole will resolve the specific problem, there can be no isolated solutions. Our principle is to maximize your profits and to foster in your personnel an increased awareness of sophisticated solutions.

Efficiency is understood as a harmonious striving for the best possible performance using the least possible amount of concentrated methods, machines, materials, money and manpower, while also increasing the quality of life for one self and others through success on the job.

O U R I N S T R U M E N T

The Reschke 5M System, proven professionally over three decades, enhances the efficiency of the most important production factors:

M1 Methods
M2 Machine
M3 Materials
M4 Money
M5 Manpower

Our 5M System has proven itself as a logical instrument, a functional approach for achieving added value (lasting success, business expansion, increased revenues, reduced costs and maximized profits).

Application and implementation of the 5M System is carried out through a pragmatic, selective examination of operating units, business divisions, problem areas and various activities. Effective efficiency improvements are explored and assessed jointly, and proposals for solutions are prepared. These are then evaluated, improved and implemented, together with you, and following a detailed review of your data by your personnel, until success is measurable by the improvement of your results.

By improving effectiveness, efficiency, productivity and quality, the 5M System achieves a Return on Input (ROI) in the order of at least 10 : 1.

The formula for success: take a clearly defined and quantified project plan, your project coordinators and teams, plus our moderators, and apply the 5M System for problem solution.

The result: optimal, long-lasting and substantial improvements in efficiency within short time.

Experience has shown that we need only a few days to achieve real improvements. Your personnel will become acquainted with the simple, and therefore successful, 5M System already in the beginning of problem diagnosis and can thus apply it thereafter. Professionalism is a priority for us.

We are not interested in short-term "one-time" campaigns. We aim for measures that produce solid, sustained improvements.

RESCHKE 5M SYSTEM ©

M 1 Methods (10)*	M 2 Maschine (30)*	M 3 Materials (30)*	M 4 Money (10)*	M 5 Manpower (20)*
Process Design	Production Planning	Lost Time	Capital Commitment	Corporate Identity
Value Analysis	Production Control	Just in Time	Capital Utilization	Key Competences
Communication	Quality Circles	Procurement Costs	Cash Controlling	Project Coordination
Work Routines	Work Plans	Deadlines	Joint Ventures	Brainstorming
Duty Record Book	Utilization	Bill of Materials	Actual Costing	Qualification
Productivity	Times	Quality	Clearing House	Utilization
Cultures/Mentalities	Status	Inventory Control	Zero Base Budgeting	Overtime
Strategies	Investments	Dispositions	Receivables	Training
Structures	Maintenance	Ordering System	Financial Controlling	Salaries and Wages
Product Design	Processing Times	Down Times	Budget Planning	Head Count
Organization	Automation	Documentation	Cost/Benefit	Out-/Inplacement
Marketing	Rationalization	Material Handling	Evaluation	Flexibility
Logistics	Innovation	Goods Distribution	Pricing	Quality of Life
Updating Services	Output	Storage Organization	Current Assets	Execution of Functions
Sales	Energy	Accounting	Liquidity	Routine
EDP Support	Production Costs	Waste Disposal	Mergers/Acquisitions	Assessment/Test

* average efficiency improvement in % compared with " Actual" concerning the production factors M1-M5 (catch words included)

O U R P R I N C I P L E S

If you request most highly qualified efficiency professionals as problem-solvers do we offer the services of our moderators, all of them supervisory and executive board members, managing directors or senior department heads with long experience in commerce and industry. They are all seasoned professionals, highly competent at helping to implement the appropriate measures to solve a wide range of problems.

Every one of us has more than 25 years of experience in commerce or administration as business expert, engineer, instructor, psychologist or scientist. We speak your language. And we achieve the extraordinary with our commitment and knowledge.

We are 100 professionals, representing more than 15 nationalities, working in 25 countries, and offering 3000 man-years of experience. Our positive approach enables us to find a way where others only see obstacles. We know from experience that standards set by outsiders are not the solution. For this reason, only a limited number of our professionals takes on one assignment at a time as moderators cooperating with your personnel while aiming always for an integrated effort.

Business needs efficiency, and we are No. 1 in improving efficiency. Our moderators work creatively, neutrally and independently, according to the goals we have jointly set. Based on practical applications, our work is systematic with a complete absence of hierarchy. Our approach is thorough, prudent, and discrete. Confidentiality, reliability and success are assured.

Our efficiency experts do not write reports that no one reads, nor do they conduct questionnaire campaigns. We are available to the kind of future-oriented client who does not put emphasis on catch words but who places high value on qualities such as partnership, loyalty, objectivity, perseverance, diplomacy, tradition, commonsense, discretion, team spirit, harmony, trust and dynamism, as well as the courage to contradict and the transfer of experience. Our customers appreciate the support and promotion of entrepreneurial ways of thinking and acting.

O U R A D V A N T A G E S, Y O U R B E N E F I T S

1. **Assistant and instrument of entrepreneurs**
2. **Many decades of professional experience**
3. **Supplier of know-how with experience of implementation**
4. **Moderators, not merely as "time managers"**
5. **"Free of charge" because result by far exceeds expenses**
6. **Investment instead of expense**
7. **Excessive costs controlled by immediate measures**
8. **All methods have proven history of success**
9. **Difficult decisions pushed through without hierarchy**
10. **Barriers to communication dissolved - Reorganization**
11. **Acceptance of solutions through joint development with users**
12. **Successful cooperation with works councils**
13. **No „mere consultants /reporters“, but anti- consultants**
14. **Moderators as value-adding alternative to consultants**
15. **Consultants cost money - our moderators improve the results**
16. **Integrating power with long-term effect (cultural change)**
17. **Professional, moderator, observer, supervisor, and promoter**
18. **Measurement of success of joint project work**
19. **Personnel assisted to self-help through "Help to help yourself"**
20. **Efficiency and realistic demand profile**
21. **Moderation in the Socratic dialogue**
22. **Special service order - we make the difference**
23. **Guaranteed success by project work proceeds step-by-step, on the spot**
24. **Steering committee for project control**
25. **Adequate approach with a „bite“ depending on situation**
26. **All work is user-oriented with emphasis on practical aspects**
27. **Team brainstorming creates commitment**
28. **Limited cost risk through joint project plan**
29. **Maximum benefit with minimum number of outsiders**

O U R C L I E N T L I S T

ABB
AGIV
Aluminium Werke
Amadeus
AMAG
Andritz
ASTA
AURICON
Axair

Babcock
Bakelite
Bank Austria
Bank für Sozialwirtschaft
BEHR
B.G.A.
BHS
Biochemie
Böhler Uddeholm
Bopp & Reuther
Bosch Siemens
Brandenburg.Tuchfabriken
Brau-Union

Ciba-Geigy
Coop Schweiz
Creditanstalt Bankverein

Danzas
Degussa
Deutsche Bahn
Deutsche Bank
Deutsche Lufthansa
Douglas
3 M

EFFBE
Elin
Entwicklungsbanken
Erzbistümer
EU

Flughafen Frankfurt
Fürstenberg

G + H Montage
Gaggenau Werke
Giulini Chemie
GKB
GMN
Gruner & Jahr
GTZ

Hellmann
Henkel
Hochtief
Hoechst
Hoesch
Hotelplan
HT Troplast
Hüls
Hutter & Schrantz

IVM

Jenbacher
Jet Aviation

Kalle
Kraftanlagen Heidelberg
Krankenhäuser
Krupp
Krups
Kühne + Nagel

L'Oreal
Leistritz
Lentjes mce
LTU

MACOR
MAN
Mautner Markhof
MEWA
MILO
Ministerien
MONTAN

Neptun Industrie Rostock

Oertli Wärmetechnik
ÖAG Gruppe
ÖIAG

PAN ISOVIT
Papierfabrik Albbruck
Pfisterer

RAG
Regierungen
Remy Industries
Rhenus Weichelt
Robert Bosch
Röchling
Ruberoid
RÜFAS
Rütgers Pagid

SaarEnergie
Sandoz
Schock
Schoeller Bleckmann
Semperit
SIEMENS
START
STEAG
Steirerbrau
Swissair

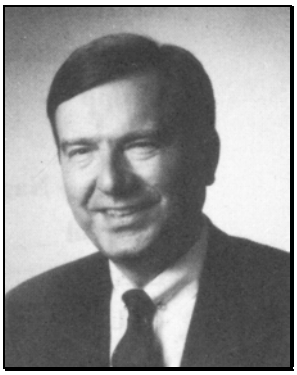
Teerbau
Tiroler Loden
TRW

Universitätskliniken

VEGLA
Veitscher Magnesitwerke
Victoria Versicherung
Voest Alpine
VFT

Waagner Biro
WEF
Weyl
WMH
Wörl

Zumtobel



Diethelm Frederic Reschke, born 1941, is an industrial engineer active worldwide as an entrepreneur, moderator, problem solver, promoter, advisor, coach and author of the book „Effizienz-Steigerung durch Moderation“. He is a member of international commissions and clubs, including the Industrie Club Düsseldorf, Airport Club Frankfurt, and, i.a., the President of the Efficiency Foundation International (EFI).

Since the founding in 1965, the results of our clients have improved by billions of Swiss Francs using the 5M System which reduced their costs, increased their sales and improved their results by a number of other means. We occupy a leading position worldwide, and have earned wide recognition.

We have business and personal links with senior executives of business enterprises, governments, and various organizations around the globe.

Call us when you require professional improvement of efficiency and results; appointments can be arranged any time convenient to you. We can be reached around the clock via the most effective communication technology - our Voice Mail Box System. We would be glad to assess your efficiency potential in a personal and confidential conversation.

Thank you for reading this company profile. With best wishes for success in improving your efficiency.

Diethelm Frederic Reschke

(08.2000)

ISBN 3-7938-7227-0
I.H. Sauer-Verlag GmbH, Heidelberg
Fax 0049 (0) 6221 906-259 Telefon 0049 (0) 6221 906-0

UNITED BANK OF SWITZERLAND (UBS), CH 8021 ZÜRICH, ACCOUNT NO.: P 0437 253.0

PROFIS BRINGEN PROFIT

Die Reschke Group steht für rund 3.000 Jahre Erfahrung in allen Bereichen der internationalen Wirtschaft.
Mit seinem 5M System hat Diethelm Frederic Reschke eine Lösung entwickelt, die mit Hilfe von Effizienz-Moderatoren eine überdurchschnittliche Ergebnis-Steigerung garantiert.

Das Gespräch mit Diethelm Frederic Reschke führte Harald M. Ortlepp in Monte Carlo.
Fotos: Karin Brandt.

Aktiengesellschaften gibt es neuerdings wie Sand am Meer – in der Struktur dieser Unternehmensform sieht Diethelm Frederic Reschke eines der größten Probleme der momentanen weltweiten Wirtschaftslage. „AGs werden selten von Unternehmern, sondern meist von unerfahrenen Amateuren gelenkt“, sagt er. „Der klassische Unternehmer ist inzwischen fast ausgestorben, und wenn wir der Krise entgegenwirken wollen, wird es höchste Zeit, ihn wieder auszubilden.“

Diethelm Frederic Reschke hat schon vor vielen Jahren beobachtet, wie sogenannte Manager in gutgehenden Unternehmen mit einer Verantwortung ausgestattet wurden, der sie mangels praktischer Ausbildung und Erfahrung nicht gerecht werden konnten. „Inkompetenzen ließen sich über viele Jahre vertuschen, denn eine blühende Wirtschaft verzeiht so manchen – auch gravierenden – Fehler“, sagt Reschke. Dennoch hat er die Krise längst kommen sehen und sich bereits vor 37 Jahren zum Ziel gesetzt, unternehmerische Kompetenz zu lehren und zu fördern. In der 1965 gegründeten Reschke Group vereint er derzeit rund 3.000 Jahre profunde Berufserfahrung in Form von hundert gestandenen Führungspersönlichkeiten, und angesichts der prekären wirtschaftlichen Situation kann sich die Gruppe vor Aufträgen kaum retten.

„Was uns fehlt, sind nicht etwa hilfesuchende Unternehmen – von denen gibt

Diethelm Frederic Reschke (61) ist Wirtschafts ingenieur und hat 1965 die Reschke Group gegründ- det, in der100 selb- ständig operieren- de Effizi- enz-Mo- deratoren aus 15 Nationen einen Brainpool mit 3.000 Jahren Berufser- fahrung bilden. Auch als Präsident der Effi- ciency Founda- tion Inter- national e.V. (EFI) fördert und unter- stützt er die Ver- breitung effizienten Denkens und Han- delns.

es wahrlich genug – sondern erfahrene Führungskräfte, die ihren Karriereweg hinter sich haben und bereit sind, den daraus resultierenden Wissensschatz weiterzugeben." Das Geheimnis der Reschke Group liegt nämlich darin, dass die zur Gruppe gehörenden Kollegen in die Unternehmen gehen und als Effizienz-Moderatoren gemeinsam mit deren Führungsteams konkrete Lösungen für die anstehenden Probleme erarbeiten. Dabei geht es fast ausschließlich um eine Effizienz-Steigerung angesichts der bestehenden Kostensituation. „Was wir anbieten, hat jedoch nichts mit der Arbeit von sogenannten Unternehmensberatern zu tun", sagt Reschke und wird schon bei der Vorstellung aggressiv, dass seine Kollegen und er dieser Spezies zugerechnet werden könnten. „Unternehmensberater zeichnen sich doch hauptsächlich dadurch aus, dass sie vorgeben, genau zu wissen, wie es geht – aber selbst umsetzen können sie ihre meist nutzlosen theoretischen Abhandlungen nicht." Vor allem kritisiert

„Unternehmensberater zeichnen sich doch hauptsächlich dadurch aus, dass sie vorgeben, genau zu wissen, wie es geht – aber selbst umsetzen können sie ihre meist nutzlosen theoretischen Abhandlungen nicht."

Reschke die weitverbreitete Praxis, Effizienzprobleme mit Kostensenkungsmaßnahmen im Personalbereich, sprich Entlassungen, lösen zu wollen. Das Bilanzergebnis lasse sich durch solche Aktionen zwar kurzfristig verbessern, aber das eigentliche Problem sei damit nicht einmal ansatzweise zu beheben.

Unter dem Motto 'Rent a Professional' können bei der Reschke Group selbständige Effizienz-Moderatoren gebucht werden, die in das Unternehmen kommen und mit firmeninternen Projektteams die anstehenden Probleme lösen. Grundlage der Zusammenarbeit ist ein präzise definiertes Ziel. „Wir sind der Auffassung, dass nur das, was messbar ist, Gegenstand einer Effizienz-Steigerung sein kann. Im Rahmen von Wissens-Management, Qualitätszirkel-Projekten oder des betrieblichen Vorschlagswesens etc. wurde oft versucht, die eigene Problemlösungskompetenz innerhalb des Unternehmens zu fördern. Der Nachteil dieser Maßnahmen liegt darin, dass erst im Nachhinein deutlich wird, worin ein eventueller Nutzen liegt." Im Gegensatz dazu bestehen die Professionals der Reschke Group schon deshalb zu Beginn ihrer Arbeit auf eine konkrete Zielformulierung, weil sie einen Return on Input garantieren, der im Durchschnitt 10:1 übersteigt.

Sobald die Zielgröße festgelegt ist, wird innerhalb des Unternehmens ein Projektteam zusammengestellt, das mit Hilfe des Effizienz-Moderators systematisch Maßnahmen entwickelt und umsetzt, die zur Zielerreichung führen. Dabei gibt der Effizienz-Moderator keine Lösungen vor, sondern moderiert die Teams in die richtige Richtung. „Wir füllen damit die Transferlücke, die ein Unternehmensberater nach Abgabe seines Schlussberichts hinterlässt. Unsere Aufgabe ist erst erfüllt, wenn das definierte Arbeitsziel erreicht ist." Das Ziel liegt meist in einer Reduktion der Kosten um x Prozent pro Jahr, sagt Reschke, denn die Praxis habe gezeigt, dass es wesentlich leichter falle, die Kosten um zehn Prozent zu senken als den Absatz um fünf Prozent zu steigern. Wichtig ist in diesem Zusammenhang, dass es sich bei der Effizienz-Steigerung immer nur um die Senkung von Sachkosten verschiedener Produktionsfaktoren handelt. Personal einzusparen hält Reschke für absolut falsch. „Ein Pilot kann auf seinem Flug auch nicht einfach ein paar Passagiere rauswerfen, um sich anschließend mit einer guten Landung zu brüsten."

Der Vergleich mit dem Piloten kommt nicht von ungefähr. Die Reschke Group bildet ihre Effizienz-Moderatoren nämlich in einem Effizienz-Moderator-Simulator (EMS) aus. „So wie ein Pilot regelmäßig in den Flug-Simulator muss, brauchen die Manager von heute den EMS, um Pleiten und Abstürze zu verhindern." Ziel dieser Veranstaltung ist das Erlernen situationsgerechten Verhaltens bei der Moderation von Effizienz-Steigerungs-Projekten. Insbesondere wird dabei die Anwendung des Reschke 5M Systems gelehrt und trainiert. Als logisches Instrumentarium mit normierten Lösungsschritten hat sich das 5M System bereits über drei Jahrzehnte (seit 1965) bewährt. Es steigert die Effizienz der wichtigsten Produktionsfaktoren: M1 Methoden, M2 Maschinen, M3 Materialien, M4 Mittel und M5 Menschen. Eine funktionsorientierte Vorgehensweise verspricht Wert- und Umsatzsteigerung, Erfolgssicherung, Geschäftsausweitung bei gleichzeitiger Ertragserhöhung und Kostensenkung und damit letztlich eine nachhaltige Gewinnsteigerung.

„Wir füllen die Transferlücke, die ein Unternehmensberater nach Abgabe seines Schlussberichts hinterlässt. Unsere Aufgabe ist erst erfüllt, wenn das definierte Arbeitsziel erreicht ist."

Gunter Müller und Diethelm Frederic Reschke halten nicht viel von der klassischen Unternehmensberatung – aber eine Menge von der Hilfe zur Selbsthilfe durch Effizienzmoderation.

„So wie ein Pilot regelmäßig in den Flug-Simulator muss, brauchen die Manager von heute den EMS, um Pleiten und Abstürze zu verhindern."

„Wenn wir potentielle Kollegen, die ihren Beruf über mindestens 25 Jahre ausgeübt haben, zur Teilnahme an dem EMS einladen, glauben viele, sie bräuchten aufgrund ihrer langjährigen Praxis kein Training mehr. Wir haben jedoch die Erfahrung gemacht, dass das nur drei Prozent von sich behaupten können.“ Wer zur Reschke Group gehören möchte, muss deshalb zunächst an einem EMS teilnehmen. „Wir kaufen keine Katze im Sack, denn sogenannte Ex-Manager gibt es genügend und Trittbrettfahrer erkennen wir sofort.“ Was Reschke sucht, sind aktive und ehemalige Führungspersönlichkeiten, die vor allem über einen gesunden Menschenverstand verfügen und Freude daran haben, jungen Menschen das Wissen zu vermitteln und die Erfahrung weiterzugeben, die sie in keiner Universität der Welt lernen können. Wer zur Reschke Group gehört, hat die Philosophie der Gruppe verinnerlicht, nach der Effizienz mit Lebenstüchtigkeit gleichgesetzt und als harmonisches Streben nach optimalen Leistungen bei möglichst geringem Aufwand verstanden wird. Im Ergebnis wird so die Förderung von Lebensfreude bei sich selbst und seinen Mitmenschen durch beruflichen Erfolg erreicht.

Was Reschke sucht, sind aktive und ehemalige Führungspersönlichkeiten, die vor allem über einen gesunden Menschenverstand verfügen und Freude daran haben, jungen Menschen das Wissen zu vermitteln und die Erfahrung weiterzugeben, die sie in keiner Universität der Welt lernen können.

Angesichts dieser Philosophie versteht sich von selbst, dass es bei einer Moderation vor allem auf das Miteinander und die Akzeptanz ankommt. Sowohl die Zieldefinition als auch die Vorgehensweise und Durchführung werden gemeinsam mit den beteiligten Mitarbeitern des Unternehmens erarbeitet und folglich auch akzeptiert. „Wir gehen nicht in die Unternehmen und lösen deren akutes Problem“, erklärt Reschke. „Wir leisten viel mehr Hilfe zur Selbsthilfe, damit die Teilnehmer des Projekts auch nachdem wir unseren Auftrag erfüllt haben, alleine erfolgreich weiterarbeiten können.“

Wie ernst Reschke es damit ist, zeigt auch das jüngste Produkt der Reschke Group: Seit kurzem wird ein Effizienz-Projekt-Simulator (EPS) angeboten, in dem Unternehmen ganze Projektteams ausbilden und trainieren lassen können. Erfahrene Effizienz-Moderatoren führen die Teilnehmer über einen Zeitraum von zehn Tagen in das Reschke 5M System ein. Für konkrete Aufgabenstellungen werden realisierbare Lösungsvorschläge mit Umsetzungszeitplan, Maßnahmenkatalog und Wirtschaftlichkeitsrechnung erarbeitet. „Idealerweise werden die Ausarbeitungen anschließend mit Hilfe unserer Effizienz-Moderatoren im Unternehmen implementiert. Konzernkunden, die mit uns einen EPS veranstaltet haben, konnten alle einen Return on Input von mindestens 10:1 verzeichnen.“

Wer noch Zweifel am Reschke 5M System hat, sollte sich den Bestseller ‘Effizienz-Steigerung durch Moderation‘ von Diethelm Frederic Reschke und Prof. Dr. Reiner M. Michel zu Gemüte führen. Sehr anschaulich und einfach nachvollziehbar wird hier beschrieben, wie mit dem 5M System professionelles Projektmanagement durchgeführt werden kann. Natürlich ist das Buch auch für jeden Manager ein Gewinn, und wer sich zum EPS oder EMS anmelden möchte, kommt nicht umhin, es zu lesen: für die Teilnahme ist es die unabdingbare Pflichtlektüre.

Die erste, 1998 erschienene Auflage von ‘Effizienz-Steigerung durch Moderation‘ war bereits nach einem Jahr vergriffen. Im Jahr 2000 erschien die 2. Auflage.

Diethelm Frederic Reschke noticed years ago that many companies, especially corporations, at some point lose their ability to run their business. That is why he founded the Reschke Group back in 1965, which today includes 100 experienced former executives for a total of more than 3000 years of experience out in the field. Considering the precarious global economic situation, the group can hardly keep up with the requests for their services.

„What we’re missing are not companies looking for help – there are more than enough of those – but rather experienced businessmen that have their careers behind them and are willing and ready to pass on their experience and knowledge.” The company’s advantage is the fact that the Reschke Group member goes into the individual company and works together with the existing management to improve efficiency and results and solve existing problems.

The „efficiency moderators” (facilitators) are trained by Reschke in an „efficiency moderator simulator” (EMS). The training goal is to learn situation-oriented behaviour by moderating efficiency-improvement projects. The use of the so-

called Reschke 5M System is taught and implemented. This system has been in use for over 30 years and is based on the use of logical methods and standard step-by-step solutions. It increases the efficiency of the most important productive factors. It promises to increase value and revenues, safeguard the success and to expand the business while raising earnings and lowering costs which in the end means sustainable growth of profitability.

Whoever would like to join the Reschke Group first has to participate in an EMS. „We don't take anyone at face value. There are lots of so-called ex-managers on the market and we recognize a charlatan immediately." What Reschke is looking for are active former management experts who have lots of common sense and enjoy working with young people, passing on their knowledge and experience, which is not available at any university in the world.

Diethelm Frederic Reschke constató hace muchos años que en muchas firmas, en particular en las sociedades anónimas, se está perdiendo la competencia empresarial. Por esta razón, ya en 1965 constituyó el Reschke Group, en el que actualmente cien probados ejecutivos reúnen aproximadamente 3000 años de experiencia profesional. En vista de la precaria situación económica mundial, el grupo apenas da abasto con los pedidos.

„Lo que nos falta no son las empresas que buscan ayuda - verdaderamente, de éstas hay más que suficientes - sino ejecutivos experimentados que ya hayan hecho carrera y que estén dispuestos a entregar sus valiosos conocimientos profesionales". El secreto del Reschke Group es que los colegas del grupo van a las empresas y, en calidad de moderadores de eficiencia, elaboran soluciones concretas para los problemas pendientes, junto con los respectivos equipos directivos.

Gunter Müller

born in Dosten, Germany in 1942, speaks fluently English, French, Italian and Spanish. Being a Doctor of Laws he started his career as an Assistant to the Finance Director of Daimler Benz AG in Stuttgart, responsible for organization, budgeting, controlling, capital commitment, pricing.

Next steps: Executive Assistant to the Executive Board of Bauknecht GmbH, Stuttgart. Managing Director Westdeutsche Quarzwerke GmbH, Dorsten. Finance Director, Tarmac Bau GmbH, Düsseldorf. Managing Director Robex Internationale Freizeitanlagen GmbH, Düsseldorf. Gunter Müller always improved liquidity, productivity, cashflow, efficiency and turnover of the companies. Since 1989 he is member of Reschke Group.

Reschke forma profesionalmente los moderadores de eficiencia con ayuda de un Simulador de Moderadores de Eficiencia (SME). El objetivo de este curso es aprender un comportamiento adecuado ante las diferentes situaciones en el marco de Proyectos de Aumento de Eficiencia. Aquí se hace hincapié, en particular, en la enseñanza y entrenamiento para la aplicación del Sistema 5M de Reschke. El Sistema 5M, un instrumentario con pasos normados para obtener determinadas soluciones, ha probado su eficiencia durante más de tres décadas. Este sistema aumenta la eficiencia de los principales factores de la producción, y promete un incremento del valor y del volumen de ventas, aseguramiento del éxito, la ampliación de las actividades comerciales y, al mismo tiempo, un aumento de los beneficios y la reducción de los costos; es decir, en último término un sostenible incremento de las ganancias.

Por esta razón, quien desee ingresar en el Reschke Group debe participar primero en un SME. „No compramos nada a ciegas, puesto que hay suficientes supuestos ex ejecutivos, y descubrimos de inmediato a los simuladores." Reschke está buscando ejecutivos activos y retirados, que dispongan sobre todo de sentido común y a los que les guste poner sus conocimientos y experiencias, que no se pueden enseñar en ninguna universidad del mundo, a disposición de los jóvenes.

Por esta razón, quien desee ingresar en el Reschke Group debe participar primero en un SME.

Diethelm Frederic Reschke s'est rendu compte, depuis bien des années déjà, que la compétence de chef d'entreprise se perd dans nombre de sociétés, notamment dans les sociétés par actions. D'où son idée de créer, en 1965, le Groupe Reschke où cent personnalités chevronnées, issues des cadres de direction, représentent en gros 3.000 ans d'expérience professionnelle. Dans le contexte d'une situation économique précaire, le Groupe ne sait plus comment échapper aux commandes!

„Ce qui nous manque, ce ne sont pas des entreprises qui cherchent de l'aide – il y en a suffisamment en vérité – mais ce sont des cadres dirigeants expéri-

mentés qui ont fait carrière et sont disposés à transmettre les richesses qu'ils ont thésaurisées en matière de connaissances, de savoir et d'expérience.“ En effet, le secret du Groupe Reschke réside dans le fait que les collègues qui en font partie, vont dans les entreprises en qualité de „Modérateurs d'Efficacité“ et élaborent en commun avec les équipes dirigeantes des solutions concrètes pour résoudre les problèmes rencontrés.

Ces „Modérateurs“ (ils sont des facilitateurs et pas des conseillers) sont formés chez Reschke à l'aide d'un Simulateur pour Modérateurs d'Efficacité (EMS). Une telle rencontre a pour but d'apprendre le comportement adapté à la situation lors de la „modération“ (encouragement) de projets visant à accroître la rentabilité d'une entreprise. Ces „Modérateurs“ y sont notamment familiarisés et formés à l'application du système 5M de Reschke qui, depuis trois décennies déjà, s'est avéré être un instrument logique proposant des solutions normalisées. Ce système augmente la rentabilité des facteurs de production les plus importants et assure plus-value, augmentation du CA, sauvegarde du succès, extension de l'activité avec augmentation concomitante du rendement et baisse des coûts pour aboutir finalement à un accroissement durable des bénéfices. Toute personne désireuse de faire partie du Groupe Reschke doit par conséquent prendre part en premier lieu à un EMS. „Nous n'achetons pas les yeux fermés, car il ne manque pas de soi-disant ex-managers et nous décèlerons aussitôt les profiteurs.“

Ce que Reschke recherche, ce sont d'anciens dirigeants d'entreprise certes, mais des personnes actives faisant preuve notamment d'une compréhension humaine saine et ayant plaisir non seulement à communiquer leur savoir à des hommes jeunes mais aussi à leur transmettre l'expérience qu'ils ne pourront apprendre ou acquérir dans aucune université du monde.

RESCHKE GROUP

Einladung / Rechnung

Effizienz-Moderator-Simulator (EMS)

(zertifiziert nach DIN EN ISO 9001)

Zielgruppe: Aktive und ehemalige Aufsichtsräte, Vorstände, Geschäftsführer, Unternehmer, Hauptabteilungsleiter, Direktoren, Betriebsräte, Politiker, Ministerialbeamte, Präsidenten, Kirchenvertreter

Ziel:
- Situationsadäquates Verhalten bei Effizienz-Steigerungs-Projekten, moderiert mit dem Reschke 5M System und Lösungsfindung
- Projekt-Planung und -Umsetzung

Vorgehensweise:
- Projekt-Simulation mit Stärken-Schwächen-Profil, Lösungsvorschlägen, Wirtschaftlichkeitsrechnung, Realisierungsstufen
- Vortrag, Rollenspiel, Gruppenarbeit, Video

Termine: **14.06.-20.06.2002**
11.09.-17.09.2002
20.11.-26.11.2002 **(Weitere Termine auf Anfrage.)**

Ort: Hotel Mirabeau, Monaco
(Zimmer werden im Hotel nach eingegangener Anmeldung fest gebucht.)

Teilnahmegebühr: **CHF 3.000,--** inkl. Unterlagen

Als künftiger Kollege können Sie Ihre Selbständigkeit als Unternehmer in der virtuellen Reschke Group starten oder aber Sie sind als Teilnehmer in der Lage, exorbitant die Unternehmens-Ergebnisse zu steigern. Lesen Sie als Grundlage unser Buch „Effizienz-Steigerung durch Moderation“ (ISBN 3-7938-7227-0, Sauer-Verlag, Heidelberg).

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Based on practical cases, the BES will enable you to train and thereby resolve management issues analogous to pilot training in flight simulators.

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Customer Statements

"The Reschke 5M System is ideally suited to the acceleration, structure improvement and success implementation of the numerous projects of my division."

P. Cartus, Production Planing, Deutsche Bahn AG

"I do not know any other tool, which supports the project implementation projects in such a targeted and process oriented way as Reschke 5M System does. The moderation of the projects by experienced professionals, who can start their "third career" here, is especially interesting."

P. Wussow, Human Resources, Deutsche Bank AG

"Initially I was skeptical about yet another new system, but finally I was enthusiastic: The Reschke 5M System follows a very systematic implementation approach and due to its moderation technique quickly and easily yields results. This makes the difference to other approaches that involve more paperwork than action."

M. Bacher, Purchasing, Siemens AG

"Overall rating: very helpful, excellent guideline to understand logical process flows."

V. Hauff, Managing Director, Bosch Management Support

Please read our books
"How to improve Efficiency with Moderation and 5M System"
"Effizienz-Steigerung durch Moderation", ISBN 3 7938 7227 0
"Entdeckung der Effizienz-Moderation" ISBN 978-3-18-3 18116-2
and go to www.Who-Magazine.com
under WHO'S WHO, Neu – Titel 1.2002, Reschke

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R E S C H K E G R O U P

Since 1965

Agency of Experts
Know How and Expertise
Reschke 5M System

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FB 25/04/2008

Business Units

Our range of services contains five business units, offering our clients project related experienced professionals.

1. Efficiency Improvement	**Moderating the customer's personnel, adopting the Reschke 5M System, to improve profitability, reduce costs etc.**
2. Executives & Experts	**Supporting our customers in the case of personnel shortage by delegating experts or supervisory board members**
3. Outplacement & Newplacement	**Generating benefits from the expertise of personnel who are looking for a new challenge after early retirement. No expensive social plans!**
4. Mergers & Acquisition	**Support of acquisition and disposal of companies or parts of them, lowering the risk of wrong decisions.**
5. Efficiency Simulator	**Specific tasks of daily business are performed applying practically oriented project-simulations. During this exercise executives obtain their "Business licence"**

Reschke 5M System

M1 Methods (10)*	M2 Machines (30)*	M3 Materials (30)*
Process design	Production planning	Lost time
Value analysis	Production control	Just in time
Communication	Quality Circles	Procurement costs
Work routines	Work plans	Deadlines
Duty record books	Utilization	Bill of materials
Productivity	Times	Quality
Cultures/mentality	Status	Inventory control
Strategies	Investments	Dispositions
Structures	Maintenance	Ordering system
Product design	Processing time	Down times
Organisation	Automation	Documentation
Marketing	Rationalisation	Material handling
Logistics	Innovation	Goods distribution
Updating services	Output	Storage organization
Sales	Energy	Accounting
EDP support	Production costs	Waste disposal

M4 Money (10)*	M5 Manpower (20)*
Capital commitment	Corporate Identity
Capital utilization	Key competence
Cash controlling	Project-coordination
Joint Ventures	Brainstorming
Actual costing	Qualification
Clearing House	Utilisation
Zero Base Budgeting	Overtime
Receivables	Training
Financial controlling	Salaries and Wages
Budget Planning	Headcount
Cost/Benefit	Outplacement/Inplacement
Evaluation	Flexibility
Pricing	Quality of life
Current assets	Execution of function
Liquidity	Routine
Mergers/acquisitions	Assessment/Test

*** average realised efficiency-improvement in % of actual cost**

Your benefit with our advantages

- **Return On Input (ROI) of 10:1 and more by improving results**
- **Moderation of teams in cooperation with project- and subproject coordinators**
- **Tailor made procedure with system-competence, "Stand-by", i. e. daily start and termination of the project possible**
- **Steering-committee at regular intervals to review the projects with confirmation of the achieved results**
- **Decades of professional experience as executives**
- **Successful cooperation with the shop committee**
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Project - Inquiry

Company: ..... **Address: .....**

Name: ..... **Tel.: .....**

Title: ……...

Email: ..... **www.……..**

I am interested in (please mark with a cross):

- ☐ **Efficiency Improvement**
- ☐ **Executives & Experts**
- ☐ **Outplacement & Newplacement**
- ☐ **Mergers & Acquisition**
- ☐ **Efficiency Simulator**

Project definition:

.....

.....

Quantification of the project:

Actual Cost: ..... **€**

Material Costs: ..... **€**

Personnel Expenses: ..... **€**

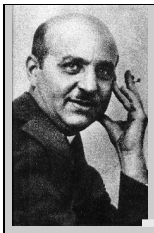
Project Benefit target: ..... **€**

Favoured Beginning of Project: .....

Favoured End of Project: .....

Preference Profile of Reschke Efficiency-Moderator:

.....



Bühler-Colloquium specialisation Psychology Summer term 2005

Subject area

Occupational appraisel of aptitude

Manager Licence
with Reschke 5M System in the Business Simulator (BS)

Diethelm Frederic Reschke

Chairman Reschke Group, Monte Carlo

Licences, certificates, references and qualifications are mandatory requirements for car drivers, train drivers, pilots etc.. All are trained under simulated conditions. But 97% of the managers would fail in the simulator. If they would be certified officially, because they do not achieve their real tasks. So much the worse no one wants to control them. Never they have to give proof of their proficiency during a systematic check.

In the Business Simulator (BS) the real capability of a manager is revealed. It was created due to the a. m. defects and systematically tested with experienced elder executives. 100 Ex-Executives each with appr. 30 years experiance in leadership gave their input to the BS - they are the members of the Reschke – Group. Since 10 years the BS is held – originally 7 days – within 3 days with max 10 participants. Up to now more than 1000 participants participated in the BS; such as students, entrepeneurs, members of shop committees, civil servants, representatives of churches and politicians. In role plays with realistic business situations the participants train efficiency improvement with moderation by means of the Reschke 5M System.

The Reschke 5M System combines many factors of success in the most efficient manner involving the Know How of the company's employees (for that reason the Reschke – Group refuses each project, if the target of the project is to dismiss employees). The Reschke Efficiency-Moderators, all high ranking former executives, are moderating efficiency improvement projects. They are no corporate consultants. They are moderators. The success belongs to the involved employees oft the client!

Based on realistic efficiency improvement projects business processes are simulated in the BS. According to the Reschke 5M System, which is field tested than more than 40 years, situational attitude is simulated, when moderation is used to execute projects and realise solutions with a Return on Input (ROI) of min. 10:1. Exchange of experience with other executives and the minimisation of cost factors are in the center. The efficiency improvement is based on appr. 80 production factors e. g. Marketing, Engineering, Purchasing; Manufacturing or Logistcs. We know from experience that there is a potential of appr. 30%.

The BS is based on value analyses standard DIN 69910. The appraisal of the participants is made according to the standard for occupational appraisal of aptitude DIN 33430.

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The foundation serves exclusively and directly the purpose, to reckognize the economical and cultural tasks of economics and to develop the efficiency of thinking and action within business and economics.

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6. EFFICIENCY PROJECT SAMPLE

6.1 Efficiency improvement: From losses to profit

I am very pleased to share some thoughts and ideas with you in connection with the ideal moderator of Reschke. We jointly want to work out an answer to the question: How does the ideal moderator "The Reschke Team" look like from the viewpoint of the principal. Additionally I would like to touch on our experience with Reschke, likewise I want to refer to some of the impulses from this organisation and which we would try to return to the Reschke Team. At first I would like to introduce my company and myself. My name is Doctor Jurgen Stadelhofer; I am Chairman of the Board of Management of VFT.

VFT is the traditional name of a company founded at the turn of the century. In its former long form it was called "Sales organisation for tar products". Like BASF, AGIV, and other companies we did not want to continue with this long form for practical reasons and that is why we call ourselves just VFT, and I am please to tell you that since the Reschke Team has been working with us, the three continents stand as an abbreviation of excellence and efficiency of our team and can be read as – Very Fine Team.

The VFT Company has been operating plants in Europe and America.

The major business is of VFT is the production of base chemical products derived from coal and petroleum. The turnover of the company will be some R750 million deutsch marks in 1995, our workforce amounts to be

between 1300 and 1400. Since we have had our cooperation with Reschke we have a new identity. Now the internal motto "We are a winning team". This is the psychological result of the dramatic turnaround which we have accomplished. Reschke and his Team have been instrumental in the final phase of this turnaround. Additionally we have become friends this 12 month cooperation with Reschke and it's against. The turnaround that we have accomplished is reflected in the profitability o situation. Our company has experienced heavy losses for many years for a number of reasons. The most important being a lack of competitiveness. We had an accrued loss of nearly 200 million DM within the last 5 years. In 1994 we could turn the business around. In 1994 we were able to show a positive result of 10 million DM. The improvement would be sustained one as we considerably changed the structures of our company. With the present turnover per capita and productivity, we have one of the highest turnovers of the German chemical industry. This is a clear indication that the present structures and ratio of our company is in good shape and we will survive the next crisis. Why did we ask Reschke and his Team to help us out of our former predicament?

A restructuring preceding a turnaround is tremendously detrimental to the self esteem of the workforce. Everybody becomes extremely disorientated about his faith in the company. The employees loose the corporate identity to a great extends. Every hope for a stable future in the company and the

coherence of a stable future disappeared. In order to put the disintegrated pieces together it seemed to us expedient to hire two experienced and mature professionals from the Reschke Team. Their job was to give the company a new identity. The identity of VFT is now characterised by the new motto – "We are a Winning Team". In this context winning means to make money and team means we want to do it together. In other words our Motto means jointly we want to achieve the success. In contrast to the prevailing doctrine of the Reschke practise, we were adamant in using two Reschke Professionals. We preferred two Efficiency Moderators in stead of one that is typical of the traditional Reschke System. We selected the two man team, because we thought it would enhance their credibility and authority. It also makes possible an exchange of views between the two Efficiency Moderators, thus facilitating progress. Additionally it increases the objectivity as far as the assessment of staff is concerned and improves the understanding of technical questions. We were lucky that both of our Reschke moderators really became a team of friends. In the beginning they did not know each other, thus we helped to build up a true friendship. The two professionals complimented each other in an ideal way. That's why we are pleased that we spend the money for the two professionals, deviating from the traditional one-man-show. External moderators have the great advantage that they do not rely on preconceived ideas when they come into a company. These relate especially to their assessment of staff and

situations. Their neutrality results in a higher degree of acceptance. External moderators as they are offered by Reschke can create competence and trust by means of competence and authority. These two features are extremely important to the phase of restructuring. They are the basis for success. Without trust no success are possible, because of the conviction of the middle management and lower management towards a philosophy of change management are two important prerequisites for achieving the goal in a restructuring phase. Additionally we wanted to have the associates of Reschke in our company in order to serve as a reflector of the moral of our company. The Board of Directors was just interested to learn about the corporate identity of our employees and how to improve their association with the corporation. These were the boundary conditions which were prevailing when to we selected Reschke to help us through the restructuring.

I am now going to describe some features of the ideal moderator of the Reschke Association. The first prerequisite for a useful and successful Reschke moderator is his competence in the relevant field. The

Entrepreneur, the Chairman or the Supervisory Board which requires a professional expects above all competence in a specific area.

Without competence the moderator is at the wrong place. Lack of competence is not only detrimental to his own reputation, but also negative to the prestige of Reschke. That's why a potential moderator should careful ponder whether he is going to apply for a job. He must have the necessary tools and skills. Too have the necessary tools available is an absolute must for a successful moderator. A tennis professional who participates in a professional tournament is not an amateur but an experienced player, otherwise he will make a fool of himself. By the same token a Reschke moderator must have competence. There are other prerequisites which should be at the disposable of a good moderator. Certainly there is an intellectual skill necessary which is reflected in a certain ease and speed to understand and analyse the problem of the principal. The principal, the Managing Director as a rule has problems and he would like to communicate these problems to the moderator. The scope of the problems is in some cases not very clear to the principal. That's why the ideal moderator should listen very well and understand what kind of problems he should tackle together with the management. On the other hand the ideal moderator must have a certain social competence. The moderator should be a likable person to find easy access to his counterparts. He must not be necessarily being a high profile. He should be

able to express himself in a concise way without being arrogant or sloppy on the other hand. In order to conclude, I would like to touch on Reschke and its future. This system of Reschke has a token of a genius. Mr Reschke is able to gather around himself experienced professionals with a host of know-how. Mr Reschke has an excellent talent in finding a job for his associates. If the compiled know-how of the moderators is marketed in a good way, then the idea is automatically successful as our industry and society become more and more competitive on a global basis. At a later stage Reschke and his associates should consider the possibility to going public in order to put the association on a broader basis. With his paternal character, he certainly will always be the leading figure of the Reschke Group. I am sure Reschke has an excellent future; however the efficiency of this association still leaves room for improvement. I would be pleased if my comments would make a little contribution to the improvement of Reschke.

RETURN ON INPUT OF 3000:1

Or

HOW VALUE ANALYSIS CARRIED OUT BY RESCHKE SAVED AN INTERNATIONAL PROJECT AND MANY MILLIONS OF DEUTSCHMARKS.

Introduction.

This article describes how Reschke was given a contract by the management of an international weapon development project to carry out a Value Analysis process which was instrumental in saving the project and considerable sums of money. The article describes the background of the weapon project and its technology and goes onto outline the Value Analysis process and how it was used by Reschke International. Because the Deutschmark was the currency used during the evaluation, all costs quoted herein are given in that currency.

Background.

During the last 20 years a number of large civilian and military aerospace developments, have been developed as international collaborative projects. For example the Tornado, the Eurofighter 2000 and the Airbus series of commercial aircraft. The reason for this is purely economic and due to the enormous cost of developing and proving the equipment involved. The development cost is high because all of these projects are kicking back the frontiers of science requiring new technologies to be developed and existing technologies to be adapted to new applications and new environments. A far cry from the world of civil engineering say, in which new projects rarely require any advances in technology. Development of aerospace projects also includes a large amount of testing and trials to prove that the systems are safe, reliable and entirely fit for the purpose for which they were intended. By sharing these development costs, nations or companies can reduce their individual costs, and, because the development costs can be written off over a larger number of production systems, overall economies of scale can be achieved. An example of this is the Boeing 747 commercial airliner, in which Boeing

had to sell 400 production aircraft before they could re-coup their self-funded development costs. Following this trend, in 1985 the Ministries of Defence of Germany, the United Kingdom, Norway and Canada agreed on a common requirement to jointly develop a new missile known as the Advanced Short Range Air to Air Missile or ASRAAM. In order to give you an idea of the technology involved and the scale and complexity of such a development project, I will briefly outline the main features of the ASRAAM Joint Staff Requirement or JSR.

Carriage. ASRAAM was to be carried on the new generation fighter aircraft such as EF2000 and the French RAFALE and also used as a self-defence weapon on fighter-bomber aircraft like the Tornado. Its main use was to be in close range air to air combat, or dog fighting, when the fighters could be pulling up to 9 or 10 'g'. To preserve compatibility with existing short range missiles, ASRAAM was to be carried on existing missile launchers and the missile weight was limited to 90 kg. Typically, a fighter should be able to carry four ASRAAMs as well as four or six medium range missiles. These requirements implied a missile that would be highly manoeuvrable, extremely compact, and intelligent.

Guidance. The previous generation of short range air to air missiles were heat seekers that use a simple infra-red (IR) sensor to home onto the hot exhaust of a jet engine or the hot parts of the airframe. These seekers are relatively easy to decoy using flares ejected by the target aircraft, and their homing accuracy left room for improvement. The ASRAAM requirement implied the use of a new imaging seeker in which an IR "camera" creates an IR picture of the target aircraft which allows the guidance computer system to direct the missile at the target's most vulnerable part, usually the cockpit, and be inherently less susceptible to decoys. Such a system would be very much more lethal than earlier systems. Development of this kind of system would need major advances in IR seeker technology and missile control, and extensive use of missile on-board computing.

Agility. A missile used in dog fighting scenarios in which the aircraft are capable of pulling very high "g" levels and, like the Harrier, nearly able to stop in mid-air, must be very agile and very fast. Thus the ASRAAM requirement called for a missile capable of turning at up to 45 "g" and be able to reach nearly Mach 3.0 (i.e three times the speed of sound) above the speed of the aircraft at launch, which could be flying at Mach 2.0. The requirement also called for the missile to be used at up to 60^0 off bore-sight. That is, the missile

should be able to engage a target that is within a 120^0 cone of the flight path of the launch aircraft. This requirement forced the use of advanced "cueing" systems like helmet-mounted sights and called for an advanced missile autopilot and control system.

Range. The range of any missile launched from a fighter aircraft in combat is highly dependent on the speed and altitude of the launch aircraft and the speed altitude and direction of the target aircraft. This means that the launch range of a missile from a fighter at Mach 2.0 at an altitude of 10 km against a target at the same altitude and speed and approaching head-on may be say 20 kms, but, if the target were going directly away from the launch aircraft, the missile launch range might be only 5 kms. To get around this problem the ASRAAM JSR specified the missile kill probability against several targets in a variety of engagements scenarios covering a wide range of launch and target aircraft speeds and altitudes. Maximum range under optimum conditions of head-on, high speed, high altitude was required to be around 40 kms. Minimum range against a low a low speed target was required to be around 200 metres. The range and agility requirements placed great demands on the rocket motor and the missile controls and meant that the missile should be capable of reliable operation in soak temperatures ranging from -55°C at low speed high altitude to +120°C at high speed low altitude.

Kill Probability and Reliability. Modern weapons are expensive to buy and maintain and therefore system reliability is a very important feature of all modern requirements. The ASRAAM JSR specified a typical manufacture-to-target sequence in which the missile spent, say 5 years in storage after being built, was taken out of store and flown in a transport aircraft for 50 hours, and then kept in its storage container in the open for two months in a Mediterranean climate. The missile was then loaded to a fighter aircraft and flown on combat air patrol for 100 hours, and finally fired at a target. The missile should then have a kill probability, in the specified engagement scenarios, of over 80%.

The Joint Staff Requirement was very exacting, particularly in proving the kill probability and reliability requirements, all of which had to be done as part of the development programme.

The ASRAAM Project Organisation.

International weapon projects of this sort have always been organised by the Nations first agreeing on a common, or Joint Staff Requirement. This done, the Nations then decided how many weapons they each wished to purchase during the production phase of the programme, and this determined their cost share of the development programme. In the ASRAAM Project, this lead to the UK and Germany each having 42.5% of the development programme, leaving Norway with 10% and Canada with 5%. A corollary of each Nation contributing X% to the cost of the development programme was a requirement that each Nation should receive X% of the development work-share. This has meant that the principle that cost -share must equal work-share has become enshrined in all international weapon projects. All of this having been worked out, the Nations negotiated and agreed an International Memorandum of Understanding to formalise these and a multitude of other arrangements that are necessary to run a project of this magnitude. The Nations set up an International Project Office, known as the ASRAAM Joint Project Office or AJPO, within the German Defence Procurement organisation, Der Bundesamt für Wehrtechnik und Beschaffung (BWB) based in Koblenz, and headed by a German civil servant procurement officer who was the ASRAAM Programme Manager. The AJPO was staffed by personnel detached from the Defence Procurement organisations of Germany, the UK and Norway and was functionally controlled by the top level international forum, the ASRAAM Steering Committee. Canada was unable to provide a permanent representative, but sent representatives to all international meetings.

Initially the Nations encouraged Industry to set up a joint Anglo-German Prime Contractor to manage the industrial organisation. This evolved as a joint venture company between British Aerospace Dynamics Division (BAeDD) and Bodensee Gerätetechnik (BGT), the UK and German specialist short range air to air missile contractors, called British Aerospace Bodensee Gerätetechnik Gmbh or BBG for short, and registered in Überlingen in Germany. In the summer of 1988, however, after a long series of internal troubles within BBG, and a number of false starts to the programme, the Nations dispensed with the joint venture idea and instead awarded the ASRAAM Prime Contractorship to BAeDD in the UK, but left the existing nominated sub-contractor organisation as it was.

In December 1988 BAeDD submitted a new costed proposal for the development and production of the ASRAAM missile to the AJPO and the Nations for approval and, hopefully, for the award of a development contract.

The 1988 ASRAAM Development Proposal.

Everyone involved in the ASRAAM project was aware that the funding set aside by the Nations for development and production of ASRAAM was limited by crude estimates that had been made some time earlier and these sums had been further limited by pressures within the Nations individual Defence Budgets. It was known, for example, that Germany had approximately 550 Million DM in their long term budget and the UK had perhaps twice that amount. These sums were for development and production of the missile. It was therefore agreed by the Nations and the Prime Contractor, that the December 1988 proposal would consist of the development phase and preparation for the production phase only; with accurate provided costs for production missiles, but only 32 pre-production missiles were to be included in the proposal. These missiles would be used by the Nations for pre-service and production testing after the Industrial development and firing trials were complete. The Nations hoped that once the ASRAAM development and production costs were firmly established, National budgets could be revised and increased to reflect the up to date forecasts.

The ASRAAM Missile and Industrial Organisation.

The industrial arrangements made by the Prime Contractor had, of necessity, to take account of commercial considerations in their choice of sub-contractors, but more important were the constraints caused by the need to apportion work-share to the industry of the participating Nations, in accordance with the work-share must equal cost share concept.

The ASRAAM missile proposed by BAeDD consisted of a cylindrical, wing-less body tube 160 mm in diameter and 3500 mm long. The rounded nose had a sapphire IR window to cope with the intense kinematic heating effects, and there were four control fins fitted at the rear of the body. Around half of the missile's length was taken up by the rocket motor and the missile weighed 87 kg. The

clean lines of the missile were marred by two sets of U-shaped hangers on the upper surface which were necessary for the missile to be used on existing missile launchers. The missile's major sub-contractors were as follows:

The IR imaging seeker and its associated gimbals, stabilisation and control system was to be developed and produced by BGT in Germany. The semi strap-down inertial reference unit, or, if you like, a mini-inertial navigation system, and the fragmenting warhead were to be produced by Mescherschmitt-Bolkow-Blömm (MBB), also in Germany.

The rocket motor sub-contractor was to be Raufoss in Norway who would design, develop and manufacture the advanced solid propellant rocket motor, but who would sub-contract the new technology carbon-fibre motor casing to Machinfabrik Ausburg Nurnberg (MAN) in Germany.

The Canadian firm Allied Signal, previously Bendix, would be responsible for the electrical control fin actuation system, and the laser proximity fuze was to be the responsibility of Thorn EMI Electronics, (TEE) in the UK.

As well as being Prime Contractor, having overall responsibility for the programme, BAeDD were going to develop the missile's power supply system, autopilot, and electronic control system including the main computer. The missile made extensive use of computers, embodied a digital interface to enable it to communicate with aircraft digital data-buses and contained 50% spare computing and memory capacity so that the software and system capability could be upgraded to face future threats, principally in the area of countermeasures.

A significant problem that the Prime Contractor faced was that of full scale test firing of the missile and the provision of suitable targets. Existing IR guided missiles are fired at flares towed behind simple target drone aircraft, which are only capable of pulling 4 or 5"g and usually survive missile engagements. The advent of imaging technology, and the need to demonstrate the missiles' effectiveness against high speed, highly manoeuvring targets, however, made the old system inappropriate for testing a missile of ASRAAM's performance. Accordingly, BAeDD included in their proposal measures to acquire full-scale aircraft and convert them for use as

unmanned drones, and to equip the British missile range at Aberporth to use these targets for testing ASRAAM.

The ASRAAM Problem.

The total cost of the 1988 BAeDD proposal for the international industrial team to develop, and demonstrate the ASRAAM missile system, but to produce only 32 pre-production missiles was 2,300 Million DM, around £700 Million at the extant exchange rate. This had to be set against the roughly 550 M DM that Germany had in its Defence budget and the sum of approximately 1,000 M DM that the UK had its long term cost plans. Both of these latter sums were for development and production of around 1000 missiles, which BAeDD had estimated would cost around 0.3 M DM each. This then was the problem faced by the Nations. How could they afford ASRAAM? This was in the days before "Detente" reduced the threat from the Soviet Union and Intelligence sources had been suggesting for years that the Soviet Union was developing aircraft and missiles that would completely outclass the existing NATO missiles.

Several high powered meetings were held in the capitals of the participating Nations and considerable quantities of midnight oil was burned in the quest to find a solution. Then the German Ministry of Defence Der Bundesministerium der Verteidigung (BMVg) came up with a solution. They had faced a similar problem some time before on a naval project and had successfully used Value Analysis as a means of driving down project development costs. BMVg therefore suggested that Value Analysis could be used to evaluate the ASRAAM proposal to see if the costs could be reduced to more manageable proportions. The other Nations readily agreed to this course of action and agreed even more readily to the German suggestion that BMVg would fund the Value Analysis exercise. BMVg contacted Herr D. F. Reschke of Reschke who agreed to provide a Moderator for the VA and the task was begun.

Value Analysis as a Tool for Efficiency Improvement.

What do we understand by Value Analysis or VA? In simple terms we mean following the concept and principles of the Deutsche Industrie Norm DIN 69910, which has been used as a standard

procedure for carrying out Value Analyses for more than two decades. May I quote a translation from the DIN.

" Value Analysis is the systematic analytical examination of a function structure with the objective of determining which of the elements , e.g. costs or profits, influences the growth in worth of a product or process. Value Analysis offers methodical help for both a decision making process, e.g. defining duties, describing functions or finding solutions, and also for creating a framework for the definition of objectives. In other words, Value Analysis is a standardised thought process for consistently analysing the work breakdown of a product or process. "

The objective of VA is to improve the productivity or quality of an organisation, or to improve the profitability of an organisation or work process. Most well known is the application of VA in order to improve the formulation of new products or to improve existing products An important use of VA is in the organisation and planning of new work processes and their use of materials, and in the improvement and modernisation of existing work processes including machinery, tooling, material handling and support equipment.

Value Analysis is recognised by four significant characteristics:

1. A work team consisting of experts in the work area being considered. This VA team forms the nucleus or heart of the VA Project.

2. The VA team work together by means of discussion and argument on all aspects of the VA process.

3. Definition of concrete and quantifiable cost objectives.

4. Carrying out the work by using a standardised work plan and procedure consisting of six stages.

The work plan given in DIN 69910 consists of the following six basic steps:

1. Preparation of the VA Objectives.

2. Determination of the Existing Conditions.

3. **Examination of the Existing Conditions.**

4. **Determination of the Solutions.**

5. **Proving the Solutions.**

6. **Proposing and Realising the Solutions.**

These basic steps can be sub-divided up into sub-steps which are also defined in DIN 69910. These sub steps, however, should not be further broken down. In contrast to other procedures, the Value Analysis procedure has the following advantages.

1. **An easier, more plausible workplan using a standardised procedure.**

2. **Because of the workplan, it is easier to check on the work progress.**

3. **Quantification of the targets or objectives is obligatory.**

4. **By following the VA procedure, the results are largely independent of the make up of the VA team.**

6. **Breakdown of the higher and lower functions makes for clearer cost breakdown.**

7. **In contrast to other techniques, it is possible to use Value Analysis in the development phases of projects.**

8. **The VA documentation and procedures are laid down in Industrie Norm DIN 69910.**

Important advantages are the standardised workplan and therefore easier examination of the work breakdown, which form an accurate basis for the cost breakdown. By this means, the application of VA can be a very important tool with which to examine the development phase of a project, even a very large one. Reschke International has used VA many times to successfully find solutions to cost problems and to improve efficiency. The key points of the application are the analysis of the products and production processes. As well as these applications, the literature reports that VA can be of great use in

improving efficiency in services, for improving administrative and information processes, and for implementing and installing information technology.

The Solution to the ASRAAM Problem.

According to the VA procedures laid down in the DIN, the VA team should be drawn from personnel involved in the work area being considered; this is a key point upon which the VA technique is based. In this case, there was an international weapon development project and the composition of the VA team had to take account the specialist knowledge of the team members, to ensure that the team contained the right mixture of technical expertise, and also to ensure that the participating Nations were fairly represented. Thus the team consisted of one representative from each of the three Nations Germany, Norway, and the UK, and three representatives from the International Project Office. A graduate student from the German national Project Office who had previous experience of using VA, also assisted the team in the early stages. The team was completed by a representative from the Prime Contractor BAeDD and the Moderator from Reschke. The VA team therefore comprised three members each from Germany and the UK and two from Norway. The technical and commercial competence of the team was very high. All were experienced in the field of guided weapons, two of them had previously been project managers in the procurement of air launched guided weapons, and one of the British team members had eight years experience in the area of weapon technical cost analysis. Of the eight team members, three were military officers of major or lieutenant-colonel rank and all team members were qualified to at least first degree level. The senior member of the team acted as the team Chairman and formed the link with the National and International Project Management. He also arranged outside visits and visits to the team by personnel from the prime and major sub-contractors. One of the group acted as secretary and completed a set of minutes after each day's meeting, which were agreed at the beginning of the next day's meeting. These detailed daily minutes were considerable help when the time came to write up the final VA report. The team's working language was English, but, to maintain national equanimity, the currency used was the Deutschmark.

Throughout the work of the VA team, which was carried out during the spring and early summer of 1989, there were no personal

difficulties between team members, for example break-up of a meeting due to arguments or misunderstandings. For a team of this sort to carry out an intensive analysis of this kind, over a long period and not have any personal disagreements is, I believe, unusual. For this I would offer three explanations. Firstly, the group was very well balanced and all personnel were good team workers. Secondly, three of the group were military personnel and the other team members had worked with the military over long periods of time. This meant that a sense of military discipline and team spirit was spread throughout the whole team. Perhaps the most important reason, however, was that the group was motivated towards a common goal; namely by working through the VA procedures, to achieve economies in the project development phase which would lead to saving the project from cancellation.

The five British and Norwegian members of the VA team were not aware of the techniques of Value Analysis before this project began; both German members, however, were aware of the technique, but had no experience of its use. It was , therefore the task of the Reschke Moderator to lead the team through the procedures in accordance with DIN 69910.

The Value Analysis Procedure.

Step 1. Preparation of the Objectives. The was the start of the VA process. It is vitally important at the start of any Value Analysis exercise to spend as much time and effort as is required, in order to firmly establish and agree on what are the objectives of the Value Analysis. Otherwise, if the team's objectives are not clearly defined and understood by all team members, and agreed with the VA team's superior management, the project is doomed before it begins.

Acting on behalf of the Participating Nations, the VA Contracting Authority, BMVg had set targets for the conduct of the Value Analysis to be carried out on the ASRAAM development programme. These were as follows:

1. To increase confidence in the technical and planning solutions put forward by the Prime Contractor in his proposal, and to increase the safety level of the long term cost planning

that the National Ministries of Defence would need to carry out as a result of accepting the Prime Contractor's proposals.

2. To improve the cost/performance ratio of the proposed ASRAAM weapon system in order to reduce the cost of the development programme to around 1,600 Million DM, which was what was believed to be the total sum that the Nations had in their long term budgets.

After discussion, and having agreed the situation with the International Steering Committee, the VA team set itself the single objective of reducing the ASRAAM development cost to the lowest possible level, consistent with maintaining the system performance requirements, by carrying out a detailed Value Analysis of the December 1988 ASRAAM development proposal. The team was not required to examine the costed proposals for missile production, that were also contained in the proposal.

Step 2. Determination of the Existing Conditions. All of the VA team members were familiar with the Prime Contractor's proposal, each copy of which was a pile of paper approximately 1 metre high. The part that was of particular interest from a VA perspective was the Work Breakdown Structure or WBS and the cost proposal. From these two documents it was possible to determine how the project costs had been built up by the PC. The problem was, however, that the matrix system used by the PC did not lend itself to easy analysis using VA techniques.

DIN 69910 describes Functions as discrete elements of analysis, whereas in the ASRAAM proposal we had two sets of Functions. The first set of Work Area Functions was the components of the missile system, that is the seeker, the guidance unit, the autopilot. the proximity fuze, warhead etc etc, and also a series of specific overall missile Functions like overall system testing, reliability testing, live missile firing trials and trials by the National Air Forces. The second set of Activity Functions was the work elements associated with each of the first set of Functions; such as specifying the system and sub-system hardware and software characteristics, developing the sub-system, writing the sub-system software, producing prototype hardware, testing the hardware and software and preparing the hardware for series production. This was complicated by the fact that Work Area Functions such as Design System Software were shown as stand alone items spread over all sub-systems instead of being

separated out into individual sub systems. This method of displaying the work break down structure, whilst adequate for normal project purposes, and analysis by the Nations, made VA extremely difficult. To overcome this problem three of the team members undertook to re-create the PC's costing data in the form of a new matrix in which the Activity Functions were specific to each of the Work Area Functions. They carried out this task outside of normal meeting time, and received considerable assistance from the Prime Contractor's representative who was able to go back directly to the contractors to seek advice about how costs should be re-apportioned, whilst preserving the commercial integrity of the original proposals. In this way a new matrix was drawn up as shown below.

Table Revised ASRAAM Value Analysis Function Matrix, showing Work Area Functions in Columns and Activity Functions in Rows.

Function	Seeker	Guidance Unit	Auto-pilot	Fuze	etc	etc	Firing Trials
Specify System							
Design System Hardware							
Design System Software							
Produce System Hardware							
Produce System Software							
Functionally Test							
Reliability Test							
etc							
etc							
etc							

The matrix was drawn up using costs in Deutschmarks. Some of the sub contractors had also quoted the costs in terms of man-hours or man-weeks. This was very useful to the team because it enabled the team to relate to the effort required to carry out the work using rules

of thumb, some empirical data, and old fashioned gut feeling tempered by experience. It also gave us the opportunity to consider the effects of man-hour costs in different companies in different countries. It was interesting to note that the differences between companies was more important than international differences. It was regrettable, however, that, in spite of considerable pressure brought to bear by the VA team and the Prime Contractor, not all of the companies were prepared to release this man-hour and cost information. The creation and verification of the new function matrix completed the first stage of the VA by firmly defining the existing conditions of the ASRAAM proposal.

Step 3. Examination of the Existing Conditions. The third stage of the VA process was a rigorous examination of the new cost matrix. The team carried this out in two stages. The first was an in-house examination in which we went through each system and sub-system, function by function and line by line to see if, using our combined knowledge and experience, we considered that the costs for each function, either in terms of cash or man-hours, were realistic and reasonable. If costs were considered to be excessive, then new costs were pencilled into our new VA team version of the matrix shown above. This was the only time during the VA process that there was any discord amongst the team members. It was apparent that two team members had sympathy with their own national sub-contractors standpoint, and strongly defended their national positions. This was unfortunate, but there was little that the rest of the team could do about it, short of pointing out in the final report that the savings postulated were an "at least" value and not absolute. The second stage of this process was a series of meetings with technical and commercial personnel from the Prime Contractor, BAeDD and the major sub-contractors, BGT, Raufoss, Thorn-EMIE and MBB. During these meetings the VA team asked the contractors to justify the costs that they had put forward. The meetings were very open and forthright, and no punches were pulled. In many instances the contractors cited the tightness of the missile system requirements imposed by the Nations as the main driver of the costs. The VA team noted these instances, but in most cases the team was aware of the origin of the specific requirements and was able to explain these points to the contractors. It was noteworthy that at no time during these contractors meetings did any of the contractors admit that their costs could be reduced. At the end of these meetings the VA team compared the contractor's views against their own ideas of the costs formed

beforehand. The team then completed their own function/cost matrix using their own estimation of the project costs.

Step 4. Determination of the Solutions. Step 4 of this VA project was very much part and parcel of Step 3, because, during the rigorous examination of the new matrix in which every element in the matrix was examined, it naturally came about that when the cost of elements was questioned, alternative costs had to be proposed. Thus the VA team drew up its own version of the function/cost matrix. Based almost totally on what was their opinion of the reasonable costs of the total development programme, These cost estimates were tempered to some degree by the discussions held with the contractors.

The second part of Step 4 was a number of Brain-Storming sessions in which the VA team considered any idea, however fanciful, far-fetched or stupid, that could result in a reduction in overall project costs. Many strange and wonderful ideas were forthcoming. Some were useful, but were outwith the terms of reference of the team, for example reducing the operational characteristics of the missile or changing the international management organisation. The effect of these useful, but not quite relevant ideas, was not costed by the team, but were included in the final report for completeness sake. Other ideas, for example carrying out missile firing trials in the USA, where live target drone aircraft were readily available, instead of creating an indigenous European capability, were costed by the team and included in the final matrix.

Step 5. Proving the Solutions. The ASRAAM VA team did not get as far as this stage in the VA process. In the case of carrying out a VA on an existing product or process, then clearly it is a straightforward procedure to put the VA solutions to the test and so demonstrate the effectiveness of the VA process. In the ASRAAM case, where the task was to analyse plans for a development programme stretching seven years into the future, such "proving" of the proposed solution clearly was not possible. The nearest that we could have got to this stage would have been for the Prime Contractor and his industrial team to have accepted all of solutions offered. This did not happen because outside events took a different turn. Instead, the last few team meetings consisted of a thorough review of all of the team's work and the decisions that had been taken. This was made easier by the excellent minutes that had been taken during the meetings.

The Conclusions of the Value Analysis.

The VA process was carried out during twelve meetings covering thirty four working days in three countries. The team was able to suggest economies in the ASRAAM Development Programme of 1,070 Million DM or 46.5% of the sum originally proposed by the Prime Contractor. In other words , the VA team suggested that the cost of developing the ASRAAM missile and producing the 32 pre-production missiles should be 1,270 Million DM. The team reported on its findings by submitting a formal report to the ASRAAM International Steering Committee and the Nations, which was followed up by a detailed briefing carried out by all team members. The Steering Committee accepted the team's results, but by this time, other things were going on.

What Happened Afterwards.

At the time that the VA process was being concluded in the autumn of 1989, the Nations were having considerable doubts about the long term viability of the ASRAAM Project. Other forces were at work. The Soviet Union was collapsing and National Defence budgets were being squeezed by the thought that in the absence of the Big Red Bear, who needs sophisticated weapons like ASRAAM. Germany was the first to break cover and withdrew from the Project in December 1989. They were closely followed by Norway and Canada, leaving the United Kingdom holding the ASRAAM baby; so to speak. The UK MOD re-examined the results of the VA team, took heart from its findings and became convinced that, in spite of the changing World situation, they needed a weapon of the ASRAAM type, and Value Analysis had shown it to be affordable.

After an initial false start of trying to develop ASRAAM as a National programme using the existing contractors and sub-systems, the UK MOD decided to open the project to international competition. This they did and eventually three industrial organisations submitted proposals.

BAeDD proposed a revamped ASRAAM, essentially the same as described herein, but with two differences. The IR seeker consisting of an IR "camera" would be produced by Hughes Missile Systems in the

USA, and the rocket motor by Royal Ordnance in the UK. All other contractors were as before.

An Anglo-French consortium of GEC Marconi Dynamics in the UK and Matra Dynamics in France proposed a missile called MICASRAAM, which was a development of a French missile called MICA.

At the last minute in the competition, BGT in Germany proposed IRIS, which was the original ASRAAM seeker fitted to a Sidewinder missile body.

The results of the competition were announced in the autumn of 1991, the winner being the BAeDD ASRAAM. Thus, apart from two changes in the configuration, ASRAAM lived on. Early in 1992 the UK MOD signed a fixed price contract with BAeDD for the development of ASRAAM and the production of 1,000 missiles. The total cost of the contract was around 1,700 Million DM which thoroughly vindicated the VA team' s findings.

At the time of writing this, in June 1997, the ASRAAM programme is going well. There have been several successful fully guided, live firing trials and series production is due to commence in the next few months.

Conclusion.

This has been the story of how Value Analysis, inspired by Reschke, saved the ASRAAM weapon project and many millions of Deutschmarks, or, more accurately, Pounds Sterling. The total cost of mounting the Value Analysis project was around 0.35 Million DM and the savings proposed, and largely achieved by the UK, were around 1,070 Million DM. A Return on Input (ROI) of 3.000:1.
Writing as an ex-member of the UK MOD, I am happy to say that the Investment was paid by Germany, but the Return has been gained by the UK!

Note on the Author. (If it is required)

Wing Commander W G Bradley MBE MSc(Eng) MSc was the Deputy Project Manager of the ASRAAM Joint Project Office in Koblenz. He was the Chairman of the VA team, and subsequently became the Deputy Project Manager of the ASRAAM Project in the UK MOD. He has now retired from the Royal Air Force and is a Defence Consultant.