Strategic Business Planning & Management for the 21st Century

- A Personal Perspective-

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(1) Summary and Objectives

The aim of this short discussion paper is to provide a practical 5 year vision for "21stC-Business-Planning" in order to significantly expand the customer base, and to create a compelling proposition for its application within mainstream corporate planning.

(2) Business Background - Ages of Business Planning

In order to project visions into the future, it is always necessary to examine the past, so we'll briefly discuss the previous ages of business planning:

- 1970's/1980's *Macro Models* Emergence of computer support for large scale corporate and government planning models based on methodologies such as econometrics, and systems dynamics. Examples include British Telecom's Long Range Planning Model, and the UK Government Treasury Model, that both run on large mainframe computers. These models were expensive to develop, and required constant "retuning" to ensure a good fit with the marketplace, and current environmental and economic conditions. Planning was done by the "planning department" and various committees, within a business environment that was still relatively slowly moving. During this period the spreadsheet model emerged, originally using the MAC based VisiCalc, and then the even more widespread IBM PC based Lotus 1-2-3.
- 1990's Micro Models The desktop PC-based spreadsheet became a planning panacea, and practically every computer literate manager was able to develop a model for their own department and sphere of operations. In most businesses the Finance Department and CFO take control of planning, and start to monopolise the EXCEL Spreadsheets resulting in a strongly financial orientation to strategic planning decisions. Board Meetings degenerate into a cocktail of power point slides linked with detailed excerpts from financial spreadsheets, often requiring a magnifying glass to view and understand the compressed details.

- 2000's Integrated Models Following the emergence of the internet as the "information and communications" utility, the business world is becoming even more dynamic, and moving from "order" to "chaos". Many traditional corporations and retailers are struggling, whilst new "ecommerce" entrants start to take significant market share, using suppliers from China and the Far East, and outsourced call centres and software development from India, Eastern Europe and Russia, as well as East Asia. The epidemic of micro spreadsheet models from the 1990's is no longer sufficient, and large scale models from the 1980's take far too long to develop in the often chaotic business world. So companies now need to start integrating the macro and micro approaches to business planning in order to secure a coherent overall model for their future operations......
-So with this background we propose that the next step in business planning and strategy for the 21st century is an approach that supports "*Real-Time*" strategic planning and management through the corporation.

In the following sections we develop and articulate the argument for "real-time" planning, and ways in which "21stC-Business-Planning" can extend its applications and migrate to this new marketplace as it matures & mainstreams during the coming 5 years.

(3) Market Requirements

Let's examine in more detail the major trends and market dynamics that support our proposition that companies require new tools that support "real-time" management.

- (a) Evolution of e-Commerce The internet evolved as a global trading network for business during the late-1990's, and EVERY business will need to adapt to the growth in on-line sales, increase in trading volumes with reduction in prices. In general every "physical" business will need to design and deliver its "virtual" electronic counterpart with web-site, on-line sales, support and communications.
- (b) Migration from business "order" to market "chaos" Every year, the marketplace seems to move faster, with more acquisitions, alliances, bankruptcies, and migration to Chapter 11. Strategic decisions and planning have to be taken with "split-second" timing by management teams, based on information & intelligence from multiple international sources. The proliferation of cheap computing & communications resources will only serve to speed up the "business cycle".
- (c) Scenario Management for Crisis Response Increasingly both corporations and governments need to conduct detailed scenario planning to check on responses to either minor or major crises or disasters. Today, many companies simply reply on checking out perturbations within their mega-excel

- spreadsheets, but there are few strategic tools that allow companies to checkout major structural changes. It is becoming essential for companies to analyse their vulnerabilities and responses to major economic and market shifts, and structural changes in global operations.
- (d) The Global Corporation *Headquarters* Copenhagen, *Software* India, *Manufacturing* China, *Franchised Partners* Europe, US, Asia and Australasia. Even smaller 100-staff businesses are now going global in order to secure products and services at low cost, for sale in more developed marketplaces. Whilst the internet and raw computing power supports such global trading alliances, there is now a market-requirement for advanced tools that provide distributed management teams with a means to take strategic decisions in real-time across multiple continents and time-zones.
- (e) Transforming the Board Room for Real-Time Strategic Analysis & Execution Most Board-Rooms are still based on role-models from the 20th century, together with personal laptops providing for email interludes, and the omnipresent risk of "death by PowerPoint". We now need to implement wireless networking to allow "real-time" presentations of the actual state of the enterprise with regards to criteria such as project execution, fiscal cash flows, sales revenues and targets.
- (f) "Real-Time Trade" Already, companies such as eBay are migrating towards global real-time trading operations in which customers can search for and purchase *any legal product*, anywhere in the world, complete the transaction using Paypal within 30 seconds, and have it delivered within a few days! In addition, eBay products can be dramatically cheaper than their high street retail equivalent, which will in itself lead to a paradigm shift in the marketplace. It is interesting that eBay has recently also acquired an Internet Communications company Skype to support compellingly low cost Voice over IP (VoIP) comms between customers and traders anywhere in the world. More and more companies will be set up to mimic the eBay model, as well as Amazon, Yahoo and others that already support global on-line trading operations.
- (g) Towards "Zero Relative Cost" of Computing and Communications. Since the 1980's, the cost of *both* computing power, and communications have fallen dramatically to the point at which their respective costs are in "real-terms" extremely low in comparison with other mission critical services. In fact email for the home user has been "free of charge" for many years, and major companies such as Yahoo *now* provide standard web-hosting services with up to 5GigaBytes storage space, compared with only 50Mega-Bytes just 5 years ago at similar tariffs! These astounding cost decreases now make it economic for businesses to locate their headquarters and manage their global operations from the most tax efficient island haven (even their ocean-going yacht), whilst choosing lowest cost centres for their primary business units. Such enterprises

now require "real-time" strategic planning & management tools that can be implemented as global networked applications, filtering multiple market, customer, economic and environmental inputs, and displaying decision options to the "top-team".

(4) Core Business Proposition

Based upon the summary of perceived market trends and requirements, we now move to the proposal for ways in which "21stC-Business-Planning" can migrate its customer proposition, software applications and business integration during the coming 3 to 5 years.

(a) Compelling Proposition – The latest "21stC-Business-Planning" release V9.0 has significant new applications and database integration functionality that will surely add new value to both existing and new customers. However, it seems unlikely that this will be enough to penetrate new customers and international market....

....The new 5 year vision needs to be stunningly bold, innovative and compelling, and include the reality of strategic market trends as developed and summarised in section (3). Hence my suggestion that the 5 year vision is that:

....."21stC-Business-Planning" migrates to become a "real-time" business planning and management applications environments that includes a "Virtual War Room", and scaled Network of local business planning applications "cells" in all departments, functions, business units and geographies.".....

(b) Interactive Communications – Today, the "21stC-Business-Planning" is marketed both as software applications as well as a strategic consultancy & support. In reality, it is well known that successful strategic execution requires the strategic plan to become embedded within the culture which requires extensive communication, consultation and networking. This needs to become a more explicit part of the process, as well as the "21stC-Business-Planning" branding and positioning.

As an example, during the marketing and implementation of new Internet Technologies and Applications during the late 1990's, it became clear to the management of Digital Equipment Corporation that communications and training needed to be at the heart of the process. So a small team developed an innovative training package branded as the "Internet Clinic" that provided an open "teaching and education" environment for middle and senior management that wanted to learn about the benefits of these new applications. The outcome was that the "Clinic" was packaged to a CD-ROM and taken by the team (working in pairs) to more than 25 countries, and in excess of 500 customers from Europe, to Middle East, Eastern Europe and Russia, and even back to the USA! As a result, the sales of Digital's Internet Servers, Security Products and AltaVista grew from a standing start to more than \$400Million/year during the 5 years between 1994 and 1999.

So the challenge is to develop, communicate and market "21stC-Business-Planning" products and services in a way that mainstream corporate management easily comprehend, and hence to destroy the myth that strategic analysis and planning is only for intellectuals and full-time planners. Using "21stC-Business-Planning" – virtually *anyone* can be trained to run the process!

Based upon the well-proven Internet Clinic approach we suggest:

- (1) 1st Workshop (4 hours for 2 hours cost) Introduce the 5 Year vision for "New Era" Integrated strategic Planning, and the convergence to REAL-TIME Monitoring, Analysis, and Decision Making at all levels of corporate management: Objective: Sell the "21stC-Business-Planning" Proposition & Payoff
- (2) 2nd Workshop Business Communications (1 Day) Cross-Functional Team Meeting to undertake concrete planning, identifying the market, customer and business data, and the integration "hooks" to existing corporate databases, planning applications and on-going processes. *Objective : Mapout the existing Corporate Planning Environment and then to Structure the top-level "21stC-Business-Planning" implementation process.*
- (3) 3rd Stage Cross-Company implementation starting with senior management, and then implementing networked "planning" cells within each of the local business & functional units depending on the actual business organisation. *Objective*: "21stC-Business-Planning" integration within the client organisation during an initial phased implementation of 3 to 6 months, and the longer-term execution of "real-time" planning during 3 to 5 years.
- (c) Virtual War Room The concept of the physical war or operations room really goes back to the campaigns of the 2nd World War in which the major forces had central operations rooms linked by telephone to the airports, and field operations, These gave commanders real-time second by second intelligence with which to plan, forecast and to make the optimal immediate decisions. Current wars in Iraq and elsewhere also utilise ultra-modern communications technologies to provide multi-media command of all forces within the theatres of engagement...

.....My proposition is that businesses also now need to organise themselves for "real-time" command and control operations, including both a physical operations or war room fitted with large scale networked computer panels, integrated with the corporate financial and customer (CRM) databases, and next generation "21stC-Business-Planning" V10.0+

Since senior business executives and middle-management are now far more mobile than, say, 20 years ago, we should now also conceive of the "virtual war room" which provides a business intelligence network based upon the corporate internet, wireless and

mobile 2G/3G communications. This will allow business managers to access the current business plans, strategies and forecasts from any physical or mobile location, and any internet-enabled device such as laptop, PDA or multi-media 3G phone.

In this way the networked "virtual war room" will allow groups of executives to hold "real-time" audio/video conferences regarding any aspect of the strategic business plan that needs to be reviewed in the light of new intelligence, customer, financial, economic or competitive market trends. During the weekly or monthly Board Meetings, the "top-team" would either meet all together in a fully equipped physical operations/war room, or else tele-conference in with their multi-media communications device from any mobile networked location such as airline lounges, hotels or even chauffeured limousines!

(d) Networked "21stC-Business-Planning" Applications – Central to the "virtual warroom" is the concept of networked "21stC-Business-Planning" which acts as the graphical communications interface and "super-glue" to all the relevant competitive marketing, and financial data input and targets to the "real-time" business plan. Today, it is often the Excel Financial and Sales Spreadsheets that are rolled up and consolidated within the various business units, up to "head-office". My proposal is that the "rolled-up" input should be consolidated using "21stC-Business-Planning", and this should be a "real-time" dataset that represents the complete position and status of the enterprise at any point in time – 24/7just like the "state of battle" in the actual war room.

During the 3 to 5 year implementation of "real-time" planning, management and operations, each of the business units, functions, and maybe even channels partner and primary suppliers would also be networked from the "virtual war room" to an embedded "intelligence cell" within the business unit's server.

The chaotic complexity and dynamics of the marketplace today mean that businesses that continue to manage strategic operations & decisions solely through monthly will no longer adapt quickly enough to the marketplace & competitive bids. Indeed, within the UK, former high-street giants such as Marks & Spencers, Boots, WH Smiths, and Woolworths are all struggling to adapt to the retail revolution with global supply chains, including India and China, and on-line auctions & electronic shopping malls for practically everything in the high-street!

(e) Mainstream Corporate Operations – My suggestion and vision is that within 10 to 20 years, practically all major national and international enterprises will have migrated their day-to-day-management to networked "real-time" operations managed by a "high-level" graphical planning application that could be a "new generation" "21stC-Business-Planning"". This style of management will be greatly facilitated and supported by globally pervasive low-cost communications & computing. This includes all forms of both broadband wired, wireless and 3G mobile communications and associated devices. Such enabling technologies will make it a necessity for companies to manage all aspects of their customer orders, fulfilment, service support, suppliers and assets as a fully networked real-times

trading operation. In this way, the computing & communications support traditionally associated with the ultra-fast real-time foreign exchange dealing will be extended and implemented within the paradigm of management & decision making for the enterprise of the 21st century....

....So up for discussion is the proposal that we could work together to extend and position "21stC-Business-Planning" as the "real-time" super-glue for the "Next Generation" real-time trading enterprise. We'd then work to train up and sell the software application modules, integration skills and training packages through national & international channel partners that have the necessary breadth of vision and consultancy "feet on the street".

(5) Challenges – Market and Applications Development

- (a) Crossing the Chasm: Meeting the market requirements and delivering the innovative core business proposition poses major challenges. However, I strongly believe that this is the 5 to 10 year vision that we should accept if we are to move "21stC-Business-Planning" from a peripheral development in a restricted customer base, to one that moves to corporate mainstream and achieves significant market share. This requires a leap of the imagination, and we need to "cross the chasm" through early customer deployments
- (b) Securing Customers: "21stC-Business-Planning" already has a portfolio of customer references and this should certainly be the starting point to "test the waters" for a half-day workshop and summary of our 5 year vision for business planning & strategy. In addition, we should consider moving forward with a web-based sales and marketing campaign linked with "in-house" telesales to a short-list of senior management contacts that are known to be open to presentations of strategic visions that may offer enhanced profitability. A possible outline agenda for a half-day customer sessions might run as follows:

2pm – The "Virtual War Room" – Planning for Profitable Growth in the 21st C – WHY!

- Why "21stC-Business-Planning" Technology, Internet & mobile Communications have re-shaped the ground rules for the decision maker. We now need to upgrade our tools for Business Planning to become even more effective at forecasting and managing the future corporation
- Corporate organisations are becoming more complex, and have to adapt even faster across multi-national boundaries. The life-cycle for new ventures is becoming shorter, and management have to "deliver the goods" quicker than ever before.
- Companies have to work with suppliers and support customers 24/7 across multiple time zones USA, Europe, and Asia. On-Line Shopping is becoming a global marketplace, requiring "real-time" organisation

- All business functions need to support the strategic plan. It is no longer adequate to simply roll-up the excel spreadsheets to the CFO
- Companies need to continuously evolve and adapt in order to avoid new competitive incursions to their market share, akin to the way in which organisms use their "white cells" to expel virus infections.

3pm – "New Generation "21stC-Business-Planning" V10.0" – WHAT! – Phase $1 - 1^{st} 3$ – 6 months

- New functionality for "Real-Time" tracking and monitoring, Crisis Management, Interface to Board Room Wall Graphics, and the networked "Virtual War Room"
- Support for networked "21stC-Business-Planning" for Mobile Users with PDA's Blackberries, 2G/3G Phones, using wired or wireless communications
- New levels of integration to the CRM, sales and finance databases
- Typical programme for implementing "21stC-Business-Planning" within the specific client organisation during the upcoming 3 to 6 months.
- Start to sketch out and "whiteboard" the business benefits of a rapid "21stC-Business-Planning" deployment during the next planningcycle. In particular, lead the client to a rich understanding of the meaning and importance of "real-time" planning and execution in the 21st century.

4pm - "The "21stC-Business-Planning" Journey" - WHEN! - Phase 2 - Year 1 and beyond

- "21stC-Business-Planning" supports all aspects of Business Planning and implementation from A to Z (the A to Z in the VAZA "Brand-Name"), and will take the client business from "stand-alone" planning to fully integrated planning during a 3 to 5 Year time horizon.
- Planning on the Desktop PC is networked through the corporate servers to become the complete "Virtual War Room", with a physical realisation within the Director's Hi-Tech Board Room.

5pm – "Next Steps with "21stC-Business-Planning"" – Taking the Challenge & Crossing the Chasm"!

- Working with the client on the next compelling steps to create the joint project plan for the 1st 6 months, for rapid Board approval.
- Move forward with "paid" consultancy support for the next phase of workshops and "21stC-Business-Planning" Training Sessions
- (c) Partner Training: Training and Communications are pivotal to the success of "new Generation" "21stC-Business-Planning". In fact a substantial percentage of the revenues

would be expected to be derived from the consultancy support, training and implementation of the "21stC-Business-Planning" Application Modules within the client organisation.

Given that "21stC-Business-Planning" itself does not wish to accept any inward investment or Venture Capital, the only way for the company to extend its reach is through a network of trained professional consultancy partners such as PA Consulting, Logica, CSC, IBM, & Unisys. There could also be value partnering with major database and CRM vendors such as Oracle, and SAP for whom the integration option provides further marketing hooks.

(d) New Applications Functionality: It is clear that any new software functionality would take 6 to 12 months of intense development, so the launch of "New Generation "21stC-Business-Planning"" for "real-time" tracking and management will need to be based on V9.0. The existing interfaces for graphics and computer output should be sufficient at least for starting the client "sales-cycle", but the "sales pitch" needs to be upgraded with the new "real-time" vision, and market positioning in discussion with potential channel partners.

During spring 2006, we recommend that a specification is created for "21stC-Business-Planning" V10.0 as well as a detailed sales, marketing and financial plan to justify the investment. Further in-depth effort needs to be paid to the professional "train-the-trainer" package, documentation and on-line/off-line demonstrations if the major consultancies are going to sign-up. In addition, "21stC-Business-Planning" needs to invest in scalable channels partner support.

(e) Upgraded Integration to Corporate CRM & Financial Environment: A critical part of the new proposition is the enhanced "real-time" integration to the corporate databases. "21stC-Business-Planning" already has some unique integration features for both IBM and Microsoft Databases, but this need to be extended in order if "21stC-Business-Planning" is to provide the primary interface to the "Virtual Corporate War Room"

My personal experience of systems integration is that it is best to "keep it simple" and to phase in the upgrades on a "step-by-step" basis, and to regularly consolidate and test! Hence, in spring 2006 we should start to map out the proposed integration steps as a 3 to 5 year software engineering programme, with priority given to functions that will generate early financial payoff both to "21stC-Business-Planning", as well as the client organisations.

- **(6) Business Development Programme :** In previous sections we defined the core proposition, and summarised the major challenges, so now we must consider the next steps :
- Step (1): Prepare full technical specification for "New Generation "21stC-Business-Planning" Vx.x including both the enhanced software functionality, as well as

the specification for the channels training & communications packages during 2006/2007.

- Step (2): Map out the detailed 5 Year Business Plan showing the migration from "21stC-Business-Planning" V9.0, through to versions that have the necessary functionality to support the "real-time" enterprise. This should include the suggested client integration and migration plan so that customers can implement "21stC-Business-Planning" in phased "low-risk" steps
- Step (3): Prepare Presentations and supporting Materials for the "Half-Day "21stC-Business-Planning" Clinic" that was summarised in section (5), and that takes the prospective client through the "virtual war room", and ways in which V10.0 will enhance profitability. Also start work on the Customer and Channels Training Packages, and template project plans to support the phased software deployment and integration.
- Step (4): Identify short-list of up to 50 European customer prospects (UK/Nordic) for initial sales calls (telesales, web-conference, face-to-face), with the aim to secure at least 10 End-User "21stC-Business-Planning" "Clinics". This step is necessary in order to refine the "real-time" proposition, and to establish credibility with potential channels partners.
- Step (5): Identify short-list of potential channel partners, including major consultancies, and suggest that they also participate in the "21stC-Business-Planning" Clinics. Also work through these channels relationships to greatly extend the target customer list. The aim is to mainstream "21stC-Business-Planning" as *the* recommended "real-time" planning and management tool for the 21st Century Enterprise, with *all* sales through channels partners.
- Step (6): Secure presentation sessions on relevant national and international conferences, & seminars to promote the new business paradigm of "real-time" planning & operations as supported by the software, with strong focus on customer case studies.
- Step (7): Consolidate steps $(1) \Rightarrow (6)$, and review the on-going "21stC-Business-Planning" organisation, staffing and financial forecasts for the next 3 to 5 years. Focus on "crossing the chasm" and working with customers and channels to achieve the paradigm shift from "strategic planning committees" to "real-time planning, decision making & execution".

The timescales to achieve steps (1) to (7) will depend on the outcome of our joint discussions, and the professional resources available to develop this emerging market. However, it is fair to say that the really *hard* work will be the 12 months from Jan 2006 to Jan 2007 when we'll get honest customer & partner feedback, and hopefully a couple of contracts from early adopters for "real-time" "21stC-Business-Planning".

In parallel with the customer and channels development, intense effort will also be required to further develop the intellectual foundations and architecture for the "real-

time" enterprise. I've already undertaken some basic work on the conceptual foundations of the "VAZA Business Architecture" which are summarised in Appendix 2, but more effort is still needed to transform this to a compelling management presentation.

(7) Financial Payoff – Revenue Plan, Investment and Cash Flows

It is too early yet to sketch out the financial plan, but the main criteria and assumptions are as follows:

- (a) Revenues Direct revenues from the Workshops, Clinics, Consultancy and Training Courses, as well as percentage payoffs from partner business. In addition, there will be renewable annuity revenues from the software applications sold both directly (initially), and subsequently partners.
- (b) Expenses Main costs during 2006 will be travel, accommodation, computer resources, purchased software licences, & presentation materials
- (c) Investments These include all the above capitalised computing and software expenses, together with the human development hours for the "real-time" Business Architecture, training packages, and Modelling Software Specification. Finally, it would be necessary to establish a pilot "war room" that is discussed, both as a physical room & virtual network.
- (d) "21stC-Business-Planning" V10 Clearly the software engineering effort will be a considerable investment for the realisation of this challenging 5 year plan. Transforming the classic software from a desktop PC application to a networked server environment supporting the "virtual war room" is a moderate engineering and business risk. However the proposed 3 to 5 year deployment should allow us to upgrade, test and consolidate the "21stC-Business-Planning" applications in line with "live" customer implementations
- (e) Virtual War Room This is at the core of the new proposition, and combines all the ideas revolving around "real-time" decisions making, monitoring, execution and operations. It also brings into play all the development in wireless and mobile communications technology. I believe that we are at a critical point in time at which we can bring these new technologies to enable a fundamental shift in the way in which businesses operate. Board Rooms grew from the 19th Century Business, but the 21st Century needs a global "virtual war room" such that the CEO/CFO can call up all business parameters, targets & financials whether they are on their Lear Jet, Yacht, Golf Course, Ski Slope or Airline Lounge...

...... "21stC-Business-Planning" will quickly evolve to fill this market opportunity.

- (f) Cash-flow Since the up-front investment and business development expenses are relatively low, maintaining positive cash flows will be dependent upon signing up new "21stC-Business-Planning" customers during fiscal 2006. The hook for new contracts will be the compelling 5 year vision.
- (g) 5 Year Financial Forecast The growth at which the new business can scale up will be critically dependent upon the success of the marketing campaign to build up "21stC-Business-Planning" as *the* solution that delivers profitable revenue growth through "real-time" business planning and execution.

Appendix 1 – 21st Century Business Vision : Frequently Asked Questions

(a) What is "Real-Time" Business?

"Real-Time" Business is where business management & operations is migrating during the next 5 to 10 years. It is greatly enhanced and catalysed by the high-speed global communications and computing technologies that have become "low-cost" during the last 10 years. "Real-Time" Business requires a new generation of strategic planning tools.

(b) Why "New Generation" "21stC-Business-Planning"?

"21stC-Business-Planning" is currently a 2nd Generation Tool that evolved as a PC application with powerful database integration and enhanced display options. The 3rd Generation Tools (New Generation) need to be fully matrixed into the corporate IT Server environment as the primary interface to the "Virtual War Room".

(c) What is a "War Room"?

Military commanders have adopted a central 20th Century" war room" from the 1st World War when the telephone and telegraph networks enabled "real-time" command and control for remote forces. Business Directors now need to receive field intelligence from salespersons, customers and suppliers in "real-time" and execute orders to staff and partners. The "war-room" concept seems most appropriate for the next generation of strategic business planning, and operations management tools.

(d) Why a "Virtual War Room"?...

In adapting the "War Room" to an enterprise of the 21st Century, it is usually the case that the senior and middle managers are travelling, or else based in remote locations, often in different countries or even continents. Hence, using Internet-related tools and technologies we propose that clients implement a networked or "virtual" war room in which management and relevant staff can review and enhance the "real-time" "21stC-Business-Planning" enabled plan through contemporary mobile technologies. Of course,

we also suggest that clients implement a physical "head-office" war room with large flat-screen display panels, wirelessly linked to computing servers from their Board Rooms.

(e) This seems all very conceptual but where's the Payoff?

Visions need strong conceptual foundations, otherwise they'll never become reality. Even disruptive technological innovations such as the Internet have strong design roots from the TCP/IP protocol designed more than 35 years ago!...

....Now with regards to "real-time" management, it is still very much the case that "time=profitability". It is clear that product design-time, stock rotation, sales-cycle, and many other business-cycles will all benefit through faster decision making and implementation. In addition, quicker and more accurate responses to market dynamics, competitive alliances, prices, interest rates and economic conditions will also benefit business profitability and sustainable growth. So the payoff from New Generation "21stC-Business-Planning" will be an overall increase in relative profitability, growth and market share, as well as an improved understanding of business efficiency & operations.

(f) Can you give some Real-World Examples?

Companies that have really taken "real-time" management seriously during recent years include Dell Computers, with stock-rotations measured in days, rather than weeks. Online trading companies such as eBay, Amazon and Yahoo are also expanding globally. They manage 24/7 operations with 10's of millions of customers buying and selling goods and services. Next we have the international banks, supporting real-time financial trading with split second timing for "futures contracts", and trading for stocks, bonds and currency....

....The reality now is that most companies will migrate to this model, including the large retailers and supermarkets that also need super-swift logistics to keep shelves filled with products delivered from suppliers around the globe. Many companies in the 1990's hoped that the Internet would "go away" due to poor security and viruses, but it is here to stay...

....So it will be with "real-time" planning & management, in which companies will again inevitably fight this new "business religion", but within 3 to 5 years, this will be the new management paradigm, and companies will race to catch up the early adopters!

(g) Isn't this all really technology based? – We don't want a hi-tech Board Room with these new wireless gadgets – We'd prefer them switched off!

To some extent, as explained in (k), technology is a major catalyst to the 21stC Corporation, but this requires us to pay even *more* attention to communications, training, personnel and the cultural aspects of the New Generation "21stC-Business-Planning" implementation. So remember that technology is an enabling tool, and that

attention to human values will ultimately provide the real profit for "21stC-Business-Planning" Consultancy and Software Modules. Mobile devices are now a fact of executive's life, so we should discover new ways in which to tap into this essential network resource to benefit the whole corporation!

(h) Aren't you just another bunch of smart consultants?

Of course, you need to be experienced to dream up and implement 5 year visions, but the real trick is to make the implementation easy enough for *anyone* in the company to understand, internalise and adopt as standard working practice – The end result must be practical – not rocket science – supported by a practice-based conceptual framework.

(i) If all our competitors go "real-time", then where is the gain?

This is a question for the implementation of all new applications and methodologies. Of course, ultimately all businesses will need to migrate to "real-time" management, but the early adopters are likely to achieve an early competitive edge so long as they implement wisely, working with experience professionals ("21stC-Business-Planning" Channel Partners!)

(j) Who are your real customers? –

"21stC-Business-Planning" has been active now for nearly 20 years, and can point to extremely satisfied customers in several European Countries as well as USA and beyond. We now understand that we should move outside our immediate comfort zone, and confront the challenges and market dynamics outlined in previous sections. This will enable us to serve our customers even more effectively during the coming 5 to 10 years.

(k) What is unique about 21st Century Business Management?

Management styles have to some extent been driven both by the marketplace, but even more by the enabling technologies and architecture! –

- 19thC So we find that in the 19th Century the evolution of the telegraph and telephone dramatically enhanced the ability to both manage business, as well as govern distant provinces and empires.
- Early-20thC In the early 20th century, the evolution of the skyscraper and elevator enabled business to move vertically in centres such as Manhattan...Now global phenomena Dubai, Shanghai, Hong Kong, Kuala Lumpur, Sydney.....
- Late-20thC After the 2nd World War, the evolution of the computer and data networks (X25, X400, ATM) led to the expansion of global corporate networks,
- Early 21stC So now we have Multimedia broadband Internet, coupled with high-speed wireless (3G and Wi-Fi), supporting "real-

time" voice, video, and on-line global commerce & management. Skyscrapers are still fashionable as symbols of power and wealth, but no longer a necessity except to maximise real estate potential. Companies can establish networked offices in high-tech business parks anywhere in the world from Bangalore to Bermuda, but they urgently require upgraded planning tools to control the complexity!

(l) Why roll-out "real-time" management over 5 years? – We want a payoff for our shareholders this quarter!

Like all innovations, "21stC-Business-Planning" implementation takes time, but the benefits will start to be delivered almost immediately, and certainly within 3 to 6 months. However, the full implementation of the "virtual war room", and the more advanced functionality will need a carefully phased approach in order to adapt and evolve within the context of the existing client business culture, organisation and market environment.

(m) Wow! – This proposal seems fantastic, but far too ambitious! – How can such a small business organisation like "21stC-Business-Planning" achieve the development of such an all embracing "real-time" business environment during 5 years!?

Well even famous companies such as Microsoft, Apple, eBay, Yahoo and Google had very small beginnings, often starting as "garage operations". It is the core proposition and phased execution that is important in bringing visions to reality, and this discussion paper proposes that "21stC-Business-Planning" is in an excellent position to drive this major paradigm shift!

Appendix 2 – Why *VAZA*? - Virtual Business Architecture ("*VZ* – Architecture")

VAZA International was established by Dr David Probert to provide customers with vision, applications and consultancy within the context of the 21st Century Corporation.

1st Generation – "BIG is Beautiful" – DATA - Corporations managed through databases, and supported by massive mainframe computing systems during 60's & 70's.

2nd Generation – "SMALL is Beautiful" –INFORMATION - The desktop PC is launched by Apple, IBM and others during the 1980s leading to an epidemic of financial spreadsheets and "information technology". There is much talk of the "paperless office" but this has yet to materialise, and the laser printers, & photocopiers are widely deployed!

3rd Generation – "SELF-ORGANISING Systems" – KNOWLEDGE – As we enter the 21st Century, the world of management and enabling technologies are taking us through a paradigm shift to "intelligent knowledge networks" where "content is king"! This is the new world in which *VAZA* can add significant value to client organisations.

Now each Generation of Business has its own generic support Business & Technology Architecture. Within the 1st Generation there was the traditional hierarchical corporation supported by teletype terminals, punched cards and batch processing on IBM Mainframes. Within the 2nd Generation we moved to a flatter organisation with US style open-plan offices, in which most staff have access to their own desktop PC or laptop, and the computing & communications resources are all run by the "IT Department"....

....Now within the 3rd Generation, we no longer even require fixed office desks since the workforce, including senior executives are far more mobile. So we need a new business architecture to support this virtual business organisation, and can act as the framework for strategic planning in the increasingly dynamic and sometimes chaotic marketplace.

So we define the "VAZA Virtual Business Architecture" (or simply VZ - Architecture) – in support of the 3^{rd} Generation Enterprise. This discussion is not the place to describe this in detail, but we summarise the basic principles:

- (a) 3rd Generation Business is an adaptive learning organisation
- (b) Fixed & Mobile Networks are pervasive at all levels of the organisation
- (c) Operations are National, and usually Trans-National and Global in Scope, with Staff, Suppliers, Customers and Partners in multiple countries.
- (d) 3rd Generation Businesses will migrate to "real-time" planning, management and operations during the coming 10 to 20 years, with early adopters making the transition during the coming 3 to 5 years.
- (e) **VAZA** Architecture is a scaled multi-level framework that models the business organisation as an adaptive network of communicating adaptive business units (sales, finance, marketing, operations, manufacturing...).
- (f) The physical business, assets and personnel will be complemented by the emerging "virtual" business organisation including all information, knowledge, networking, computing resources as well as on-line business.
- (g) "21stC-Business-Planning" will provide an essential planning, monitoring and deployment interface to the networked organisation. It is proposed that *VAZA* Architecture will integrate with the "virtual" business, and provide the primary strategic planning and monitoring interfaces for decision-makers within the "physical" business. In this sense *VAZA* Architecture becomes the "knowledge lens" that filters out and focuses relevant "realtime" information in order that *immediate* decisions can be taken by mobile executives regarding the optimal course of action.
- (h) The proposed VZ Architecture provides a rich conceptual model that will anchor *VAZA* Architecture as the gateway or "lens" between the "virtual" electronic world and "real" physical world of the 21st Century Business.

Appendix 3 – About *VAZA* International

VAZA International was established by Dr David E Probert with the following mission:

- I. To provide innovative strategic business consultancy in partnership with a network of *international* business associates.
- II. To create, publish and present visions and applications for new and emerging technologies. These may include 3G mobile & wireless networks, multimedia communications, on-line search, self-organising and learning networks and "real-time" collaborative computing & communications.
- III. To provide project management and mentor support for major national and international projects specifically in the fields of strategic business planning & modelling, multi-media networking, environmental protection, and the deployment of emerging & leading-edge technologies.

During the last 25 years, David Probert has provided the vision and thought leadership for many successful projects including:

- Long Range Planning Model (LRPM) The 1st Dynamic Strategic Planning Model for British Telecom that was developed during advanced management research at Cambridge University during the late-1970's. The model was used to support BT Board Level strategic analysis and decision-making both "pre" and "post privatisation".
- Computer Integrated Telephony (CIT) Established and led British Telecom's £25M EIGER Project during the mid-1980s' to integrate computers with telephone switches (PABX's). This resulted in the successful development and launch of CIT software applications for telesales and telemarketing operations in a worldwide marketplace.
- *Blueprint for Business Communities* Visionary Presentation for Digital Equipment Corporation during late-1980's that included the creation of the "knowledge lens" and "community networks".
- European Internet Business Group (EIBG) Established and led Digital Equipment Corporation's European Internet Group for 5 years, from 1994 to 1999. Projects included support for the national Internet infrastructure for the countries of Central and Eastern Europe, Russia & the Former Soviet Union and the countries of the Middle East. Dr David Probert was a member of the European Board for Academic and Research Networking (EARN/TERENA) for 7 years (1991 → 1998)

- *Supersonic Car (ThrustSSC)* Worked with Richard Noble OBE, and the Mach One Club to set up and manage the 1st Multi-Media and e-Commerce Web-Site for the World's 1st Supersonic Car ThrustSSC.
- KolaNet Established and led the KolaNet Project within the Arctic Kola Peninsula, Russia. This multi-national project run from 1992 to 1998 and provided Internet Communications, Web-Sites and Training to Research and Government Institutions within both Russia and the Former Soviet Union. The primary applications for KolaNet were the monitoring of radioactivity from nuclear power plants and sea-borne reactors as well as other harmful industrial chemicals & heavy-metals
- Secure Wireless Networking Business Director & VP for New Venture to establish a portfolio of innovative secure wireless networking products with advanced technology partners from both UK and Taiwan. Dr Probert was also appointed as the New Products Director to a well-known UK Group plc in the networked security products sector prior to its successful acquisition by a US corporation.

Dr David Probert is a Fellow of the Royal Statistical Society, and he has a 1st Class Honours Degree in Mathematics (Bristol University), and PhD Degree from Cambridge University in the field of Self-Organising Systems ("Evolution of Stochastic Automata"). His professional bio is in the 2007-2012 Editions of Marquis "Who's Who in the World".

Note to Readers: This paper was originally written in September 2005 as a Strategic White Paper for an International Business Planning & Modelling Consultancy. All references to this consultancy are now changed to "21stC-Business-Planning".