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Mister Guy QUADEN

P/A Belgian National Bank  
Boulevard de Berlaimont 14

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Dear Sir,

The sub prime crisis has deeply chocked the confidence of public opinion and investors in the financial world.

This of course you know better than who else. That is why all eyes, in search of trustworthy signals, are focused on you. You represent this beacon symbol because of your personal status but also because of the prestige of the institution you represent.

The feelings of uncertainty and mistrust can only be taken away by implementing firm and solid measures which do not only make the coachwork shine but which treats equally the disguised rust so that the whole structure benefits of a strengthening.

On May, 29 last I addressed to you an E-mail treating a context much broader than the pure credit crisis.  
As reminder, I join copy of the contents.

The symptoms and analysis all point to the same solution. Therefore I request to be contacted if you would judge I could contribute positively in finding fundamental solutions to avoid again a still bigger financial crisis and to bring the confidence the financial system will deserve then.

The insatiable greed of some shareholders, combined with the rapacity of some managers make that the safety of the society is in danger. Just like bank robbers form a danger for the security. This leaves no alternative to acting thoroughly.

I trust knocking at the right door.

Sincerely yours,

Eddy Vanderlinden  
Independent management consultant

PS A French and Dutch version of this letter are joined.

## THE LESSONS

The structure of what follows is:

- ⇒ Enumeration of the symptoms
- ⇒ Display of the causes
- ⇒ Propositions on possible solutions

### *The symptoms*

The financial crisis is costing hundreds of billions of dollars/Euros. The correct amounts are unknown but sure is that the losses will exceed all previous crises. Financial institutions became worth the symbolic penny from one day to the other. They became a take-over target for an apple and an egg. Even the FED now is suggesting to inject tax payers money in the financial world.

The crisis has spread worldwide with billions of losses for financial institutions in each developed country. The financial system shakes on his fundamentals and the principal capital; the fiducia (trust) is reduced to his minimum level.

In the same year the financial crises broke out a trader of the French “Société Générale” has managed to misuse the internal procedures, with a record loss of 5 billion Euros as consequence. This is again a temporary record in his sort.

There where the misuse of rules is silently tolerated by the management when the possible rewards are benefiting the company, internal fraud on his turn is a widely spread phenomenon that is excluded nowhere.

Yearly, the financial world has to reserve important provisions for losses incurred in the daily conduct of his business. The reason is shortcomings in procedures and production processes. More over, we have to state a year without “exceptional” costs is completely accidental and not the fruit of good management.

Asset managers are concerned with the management of the portfolio of their customers. The actual payment of coupons for instance with all reporting, administration and tax issues around is outsourced. Mostly the service provider is a linked bank.

It happened those service providers were unable to provide a data model, neither were they able to provide documentation on how business rules were enforced.

Databases were fixed and unchanged, only extensions to other entities, with sometimes duplication of data was possible

Impact analyses due to new developments or changes become a costly matter in that case.

New services, concepts or developments within the business environment cannot be coped with. Example: marketing wants to offer special new services to particular professional customers.

There are not enough requests for changes to the programs, or the questions of operational level are not coped with because the diagnoses of the felt pain cannot be expressed. An increasing inefficient IT-system is the result.

A reconstruction of a situation in the past is nearly always impossible.

Unnecessary tests are delaying the installation of new releases.

On the other side, all necessary tests do not occur because the full impact was unclear.

With other words: with the installation of new applications non-regression testing has to be executed with all systems impacted in and out of scope because the limits of the scope is unknown due to undocumented impact analysis.

As an illustration the following lived anecdote whereby a new program is generating a list. The contents of the list is then introduced manually into another system !?! No one knew where changes had to occur so

that an automated treatment could take place.  
Of course then non-regression time is nihil, which reduced the implementation time to near to nothing.

Functional and technical analysts are facing easy tasks when future systems have to be described (the TO BE situation). But describing the actual situation (AS IS) with the necessary transformations seems to be a lot of trial and more errors.

Scanning the programs is then the only alternative to get quickly a partial and summary description.  
IT becomes the only memory of the business.

#### *The causes*

Risk analysis has today nothing to do with production control.  
No model is requiring management that production is under control, luckily for the managers!

If we are living frauds à la Société Générale or crises like the credit crisis in the US, which has spread worldwide, it is because despite all norms, standards and series of ratios put on the sector, the internal functioning is not justifiable under control.  
Hopefully the authorities will, under pressure of their renewed control sensibility, not again issue a series of ratio's so that at least their conscious is put at ease.

The weak places in the procedures/production methods are not shown since no adequate data model is at disposal.

The used data models are 3D i.s.o. 4D, thus without taking into account the time dimension.  
The split of functions, which is sought in each normal financial transaction environment, is only existing at a certain point in time. That split in functions should be maintained across time barriers. In that case a trader e.g. cannot exploit the weak points he discovered earlier in other functions.

Reporting over processes with their linked risks does not occur.  
If a glimpse of reporting is given we found it inaccurate, non-standardised, not comparable nor by contents nor over time.  
There are, except imposed ratio's which can be reached in different ways, no benchmarks for processes nor products and the linked risks.

The fast evolution and production of new services with their specific risks (derived financial products) is not coped with since the generic data models are lacking. Instead we use the existing models based on existing products in a creative way.

Enormous risks can be hidden in non-adequate data models: disturbing ratios can be fooled with creative solutions, securisation of doubtful debts is one of them. The parts of funds containing those debts are sharefully placed with friendly institutions and one stays with the doubtful debts of the other.

#### *Solutions to consider*

The criteria, which should be satisfied by a solution, are listed here:

- ⇒ The data model should be generic to cope with new products/processes without re-engineering the existing data model.
- ⇒ The data model should contain a time dimension to contain a history of data and allow versioning
- ⇒ The data model should allow a standardized reporting with an adapted ontology (class structure) allowing a flexible usage
- ⇒ The data model should be universally applicable, at least in the production of services

⇒ The structure of the data model should point to shortcomings and errors at sight, through the shemes

Under documentation I understand an updated version of:

- The data model: functional and technical
- The procedures
- All information stream shemes / flowcharts
- The documentation about the computer programs, particularly of the interfaces between the different databases, computer systems, the user and the programs, ...

The industry has with the solutions cited here more than 10 years of advance. The reason for the delays in services industry laying in:

- The emphasis put on the connexion with customers: business to consumer
- The abstract character of the services as product does not make the necessity of clear procedures, encapsulated in a generic data model obvious

With ISO standard 15926 a generic data model has been introduced where off the ontology is sufficiently abstract to satisfy the service producers.

More-over an exchange, sharing and management of information in a standardised form is possible so that e.g. risk assessment and reporting is uniform and comparable.

One company, Shell, has with 2 persons contributed greatly to these developments:

- ⇒ [Matthew West](#) in the field of ISO standards, but he steered also greatly different European projects: EPISTLE with the development of STEP and the introduction of techniques for sharing information. Lots of useful [documentation](#) can be found on his website and is freely downloadable (of course with source reference)
- ⇒ Andries van Renssen with the development of Gellish: an understandable data structure, relations and object with compartments. Until now at disposal as [open source](#) for a limited number of industrial applications but extendible to other domains.

### *Conclusion*

An updated documentation and suitable data model is not only a sign of sound governance, but also a condition for:

- Risk management
- Process control
- Quality control
- Efficiency in product development

It certainly is worth to compare the needs of the service sector to the solutions founds in the industry, particularly for financial services.

### *Actions*

A first project to start with can be a feasibility study.

The extension of the existing ISO standards with their applications and goals can be the subject for a second project. Eventually this can be based on the results of the feasibility study. At startup we will certainly find a sound business case for both projects.