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Outsourcing Translation Services: Towards a more Holistic Translation Quality Management Concept

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Abstract

The underlying paper is an attempt to further develop Quality Management and Quality Assurance processes and approaches in the translation industry. In this regard, a descriptive analysis is to unveil blind spots and weaknesses in approaches that have hitherto been applied, for quality regulations and initiatives have neglected the role of output (translation) assessment and quantitative indicators.
An empirical study is to complement this information proving the validity of the introductory hypotheses on the efficiency of key point indicators and holistic quantification of measurable data.

Der folgenden Arbeit liegt die Weiterentwicklung des Qualitätsmanagementkonzepts in der Übersetzungsindustrie zugrunde. Somit dient eine deskriptive Analyse dem Zweck der Demaskierung von schwarzen Punkten und Schwächen in den bisher angewandten Ansätzen. Im Genauen zeigt sie auf, dass die Bewertung des Resultats (Translat) und quantitative Indikatoren in Qualitätsnormen und -initiativen bisher vernachlässigt wurden. Diese Erkenntnis wird von den Ergebnissen einer empirischen Studie komplementiert. Diese verifiziert die eingänglichen Thesen, indem sie die Effizienz von Key Point Indikatoren und holistischer Quantifizierung messbarer Daten aufzeigt.

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Abbreviations

gR	globalReview
KPI(s)	Key Performance Indicators
MLV	Multi-Language Vendors
LSP	Language for Special Purposes
PM	Project Manager/Project Management
PMS	Performance Measurement System
QE	Quality Enhancement
SL	Source Language
ST	Source Text
TDP	Translation Data Processing
TL	Target Language
TM	Translation Memory
TQA	Translation Quality Assurance (=QA)
TQC	Quality Control
TQI	Translation Quality Index
TQM	Translation Quality Management
TT	Target Text
VM	Vendor Management/Vendor Manager

“The man who gets the most satisfactory results is not always the man with the most brilliant single mind, but rather the man who can best coordinate the brains and talents of his associates.”

— W. Alton Jones

Chapter 1

Introduction

Multi-Language Vendors (MLVs) are characterised by their bidirectional way of acting: Receiving documents from customers they distribute them between (freelance) subcontractors. Project and Quality Management (except for revision in some cases) remain tasks to be performed in-house. This is what makes the difference between them and freelance translators (hereinafter referred to as vendors). The reason for their way of proceeding lies in the fluctuations in demand, which MLVs have to consider (i.e. different volumes of the respective source/target language (SL/TL) translations, subject area, and volume). By not employing their vendors, they remain more flexible and incur fewer expenses.

Yet, as some experts correctly pointed out: The higher the number of actors who are involved in translation processes and the higher the outsourcing rate, the more vital it is to implement strict project management procedures (inclusive of jobs tracking, in-house performance tracking and tracking of subcontracted jobs, control/filing of source documents, translated files, and company data bases, elimination of technical mistakes, vendor support and briefing/education). [cf. Vasyankin 2004]

Riewe, for instance, assigns the following advantages to outsourcing:

- *"less training of new employees*
- *less interviewing of employee candidates*
- *less complicated employee paper work like tax forms, scheduling, retirement plans etc.*
- *no need to buy extra office, work space and other equipment*
- *less expenditures for employee costs like taxes, medical issues, vacation time, holidays, workers compensation, unemployment costs etc.*
- *faster job completion and delivery*
- *expansion of market share*
- *potential orders from subcontractors*
- *higher capacity"*

[Riewe 2012]

Despite the numerous challenges and extra effort project management entails, it is – for the above-stated reasons – so central to any translation agency that it can hardly be avoided. In fact, it would be unwise for a MLV to refrain from outsourcing activities.

It can be derived from the above-presented non-exhaustive list alone that without sound project management, it is virtually impossible to durably ensure tangibility and transparency.
Consequently, the workflow cycle is, even if hopefully a virtuous one for the company, still a very complex one, for the MLV is, at the same time, the customer/buyer of translation services as well as the producer/vendor and, as such, is liable for the products and services provided to the end-customer.
Without doubt, only by means of actions like objective-setting (in terms of quality), analysis, corrective action and evaluation of vendor translation quality will a MLV successfully ensure and maintain quality.

It should also be noted in this discussion that, as any other services, translation services are highly shaped by questions of cost vs. revenue. Even if, at the beginning, initial

investments might be needed, TQM will – in the long run – generate many advantages even outside any quality framework. [Muzii 2009 a]

Admittedly, the language and translation industries have created initiatives and standards targeted at Translation Quality Management (TQM). Yet there definitely is need for further action. TQM remains "work in progress" since some blind spots remain, which, for whatever reason, have hardly been addressed at all. It is this paper's aim not only to reveal which blind spots exist, but also – and even more importantly – to address these challenges.

Chapter 2

Methodology

The following paper is an attempt to unveil existing theoretical and practical blind spots in the translation industry as well as to present a new, more holistic way of TQM in the MLV industry, assuming that (Translation) Quality Control (TQC) concepts will henceforth be complemented by (Translation) Quality Assurance (TQA). It starts from the basic assumption that transparency is vital in a knowledge society and that this also applies to things and areas as difficult to measure and track as translations.

Indeed, a translation and, even more so, a translator's quality may be difficult to measure and evaluate: Translation science proves that the provision of translation services requires more than just dictionaries and literal translations. Yet, the challenge is much wider in scope. So far, it has been unclear, what translation services really are. By way of example, scholar literature is divided about a translator's job profile as well as their liability towards their customers. The challenge becomes particularly clear when looking at translational workflow processes. The actors involved in the provision of translation services are highly heterogeneous and the process can take different forms: Either the end customers commission freelance translators with such tasks, or they commission translation agencies that subcontract vendors and carry out the translation project management.

With the introduction of DIN EN 15038, the process became more tangible, yet even more complex, as there is the need for revision.

This paper's case study is to present an example where the end costumer commissions a translation service provider with a translation task, whereby the service provider virtually exclusively ensures project management and commissions external parties, more often than not, other translation agencies, with the provision of translation services, who, again subcontract this task, perform revision tasks and revert to the MLV. The latter will carry out the necessary PM measures and then transmit the product to the end customer.

What may be neglected in the quality debate is that measuring and assessing quality definitely has become crucial, as poor-quality may have severe consequences for the end customer. It might lead to the customer denying a brand, or even misunderstanding a product. The latter has been acknowledged on an EU-level: Faulty or inappropriate technical product documentation (including translations) automatically turns a commodity into a defective one. As a result, the entire product must be withdrawn from the market in this case; often at considerable expense to the manufacturer and distributor. (cf. [TCeurope 2004] [Resolution C411 1998] in [Byrne 2007])

Even if standards and guidelines exist, reality ranges between "do what is necessary" and tremendously complex workflows.
The workflow cycle chosen notwithstanding, the MLV is liable for the quality of the end product in the end. Naturally, measuring quality would help them not only to get a clearer picture about their vendors, but also to defend their end products in case of serious reclamations and to transparently ensure high (measurable) quality.

This reality requires control, monitoring and evaluation in order to ensure that a top-quality workflow warrants a top-quality product.

This paper will deal with the difficulties concerning terminology, cultural aspects in LSP translation, or "*imperfect*" STs in this paper, as these topics were already addressed by several experts (cf. [Feidel 1970] [Horn-Helf 1999] [Schmitt 1999]). It will exclusively

deal with the role of LSP, as they have increased their market share in the industry and since the end customer, is exclusively interested in a top-quality product. As a result of highly complex workflow chains, the crux of the challenge lies in identifying and ensuring the latter.

Hypothesis:

It is my assumption that the industry lacks translation-focused guidelines, and that quantitative measures such as translation data processing (TDP) would enhance quality and transparency as well as harmonise the overall industry – thus enhancing overall quality.

To prove this, the following research questions will be assessed:

- *How can translation service providers working with LSP translation manage vendor/translation quality?*
- *Have some dimensions of Quality Assurance and Quality Assessment been neglected so far?*
- *What role will Translation Data Processing play in terms of Quality Management for LSP translation?*

The contents and reasoning presented herein are supposed to contribute to Quality Enhancement (QE). Yet, the scope of this paper is limited to LSP texts (processed in translation agencies for the sake of translation), and it particularly deals with questions of how to evaluate outsourced LSP vendor products and how to further process any such information on quality output.

By using scholarly publications and existing norms, standards and best practices, I will present a comparative analysis in the first part, and present an empirical study of TQM, portraying the implementation of Quality Enhancement procedures (QE) and Translation Data Processing (TDP) in form of a vendor evaluation programme.

The case study will show that, first, TQM means cooperating at all stages to make improvements, and this while avoiding continuous large capital investments – a fact that might be neglected in the scholarly discourse, but which is crucial to most stakeholders in

real life – as well as that, second, TQM has concentrated on Quality Control (TQC) for too long a time. Indeed, the time seems ripe for a change towards a sustainable and steady form of Quality Assurance (TQA).

The first chapters are to present different approaches to TQM as commonly addressed and put forward in the translation industry as well as a selection of the most important and most recent languages initiatives, in order to illustrate the state-of-the art, as well as to underline that quantitative elements have been neglected in TQM so far and that most actions in this field only are of a normative nature. By means of a case study, I shall then present an attempt of introducing a TQA concept that goes beyond TQC, proving that TDP is the key to sound and steady TQA. It is vital to note that the case study describes the introduction of key point indicators for a TDP system and that the information thereabout, as presented herein, dates as of June 2012. The system as implemented at the company in question may be subject to modification. As a consequence, no warranty and claim of completeness is raised.

Chapter 3

Definitions

Quality is holistic concept entailing numerous activities and aspects. As such, it is an *"endless work cycle where deliverables are analyzed, proposed, developed, delivered, and then once again analyzed"* [Muzii 2009 a] whereby the respective quality aspects and activities to engage in or to measure must be determined and properly defined before any assessment, maintenance or enhancement can take place at all. [Muzii 2009 a]

As its assurance entails an all-encompassing management process that comprises numerous activities and aspects, the respective quality aspects and activities to engage in or to measure must be determined and properly defined.

It is worthwhile mentioning that the notion of quality will always refer to translation quality in this paper. Therefore, the terms QM and TQM shall be used interchangeably. As follows, the definitions found most suitable are given. However, the list is far from being exhaustive for definitions of quality are so numerous that one could dedicate full books to this topic. It is also noteworthy that whilst other notions of quality are more closely defined below, the term (Translation) Quality Management shall be perceived literally as any way of managing quality and therefore is considered the overarching principle (and read thread) of this work.

3.1 Quality

The definition of quality, as stated in ISO 8402:1994, 3.1 reads: *"The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs."* [ISO 8402:1994]

It can be derived therefrom that TQA refers to the full set of procedures applied in all stages of the translation production process (including pre-, in- and post-production stage[1]), by all members of an MLV to ensure that the quality objectives, which matter for the end customer, are being met.

It may be sometimes neglected in the scholarly discourse that in real life monetary issues do matter, too – at times even more than others. This factor shall be taken into consideration here, too. On the one hand, *"quality means those features of products which meet customer needs and thereby provide customer satisfaction."* [Juran et al. 1999: p2.1] As providing better quality usually requires an investment in time, equipment or staff, it implies higher costs. As a result, higher quality is deemed to entail higher investments. On the other, quality can also be seen as *"freedom from deficiencies"*. [Juran et al. 1999: p2.2] This implies freedom from errors, failures, customer dissatisfaction, customer claims, etc. (as displayed in Figure 3.1). Looking at quality this way, quality means more economy and less costs in the end. [EC Report 2012]

[1] Defined by the author as translation preparation, active translation, translation control/editing and translation processing phase (including TM and Term management).

Figure 3.1: Costs of Poor-Quality [EC Report 2012: p6]

3.2 (Translation) Quality Assurance ([T]QA)

According to Apex Translations Inc., this includes *"all measures and processes that serve the purpose of preventing errors from being made"* [Apex 2010: p2] while according to Schiaffino and Zearo, it refers to *"Sampling techniques, control of quality over a (statistically significant) sample of the whole text."* [Schiaffino et al. 2012: p18] They explicitly refer to Quality Measurement as an element of Quality Assurance.

Muzii, on the other hand, distinguishes between Quality Assurance and Quality Assessment, claiming that whereas Quality Assurance takes place before the end product is delivered to the customer, Quality Assessment may be carried out in the aftermath as it is not part of the production process and only serves the purpose of identifying – not of correcting – any errors in order to evaluate performance and compliance with contract conditions. [Muzii 2009 a]

It is not the aim of this paper to discuss the differences between these notions. Instead, here the widest possible definition shall be applied. The notion of TQA is meant to include Quality Assessment and Quality Measurement. Instead of defining any TQA actions (whether reviewing, including or excluding correction, etc.), any and all actions shall be deemed to be part of TQA as long as they are supposed to entail steady high quality and are carried out in a transparent (and therefore retraceable) way.

3.3 (Translation) Quality Control ([T]QC)

According to Apex Translations Inc., this includes *"all measures and processes that serve to detect and correct any errors that may have been made in spite of Quality Assurance (QA)"* [Apex 2010: p2], while according to Schiaffino and Zearo, it refers to *"Quality verification over the whole text. Example: editing."* [Schiaffino et al. 2012: p18]

3.4 (Translation) Quality Verification ([T]QV)

This means *"all measures and processes that serve to measure the product"* [...] *"for the purpose of providing feedback to our quality system to continuously enhance our methods and processes."* [Apex 2010: p2]

3.5 Error

According to Apex Translations Inc., this term denotes *"any objective and verifiable linguistic error or inaccurate content translation"* on the one hand, *"as well as any objective and verifiable error concerning terminology, orthography, punctuation, or style"* on the other. [Apex 2010: p2] Explicitly excluded by this concept are *"subjective preferences of terminology and style, retroactive changes to the meaning or structure of the original source text, as well as changes to a translation that are not supported by the original source text"*. [Apex 2010: p2])

3.6 Native Speaker

A native speaker is *"a speaker who grew up with that language and culture, and who is intricately familiar with all facets and levels of writing and speaking that exist within that language."* [Apex 2010: p2] However, this does not refer to citizenship or place/country of birth [Apex 2010: p2]

3.7 Continuous Improvement

This term describes the perpetual and steady improvement efforts which can be both *"incremental"* and *"breakthrough"* (improvement over time vs. improvement all at once). [ASQ 2012] It implies constant evaluation and improvement of processes in terms of their economy, efficiency, effectiveness, and flexibility.

As can be seen above, the notion of quality entails numerous activities carried out at any of the diverse stages of the translation process. Yet, TQM is not meant to criticise vendors, but rather to monitor and enhance quality by giving feedback as well as to assess whether contract conditions (between vendor and MLV as well as between MLV and end customer) have been met. [Muzii 2009 a] Otherwise, MLVs cannot credibly assume full responsibility for the end product. Naturally, it is in an MLV's interest to work with top-quality vendors.

Quality Assessment – being an integral part of TQA – plays an important role in the quality cluster, for it also helps MLVs produce output that is to the satisfaction of the end-consumer. If properly processed, the information gained through Quality Assessment contributes to steady translation quality.

3.8 Translation

There are numerous definitions of what translating exactly is. The definition below best describes the fluctuation of trends in the translational field:

> *"Translation can be seen as a kind of ecosystem moving through time, modifying itself under the pressure of influences emanating from its socio-cultural environment, and evolving successfully from one into another."*
> ([Shreve 2000: p217] in [Calvo 2011])

A current standard definition goes as follows:

> *"the translator shall transfer the meaning in the source language into the target language in order to produce a text that is in accordance with the rules of the linguistic system of the target language and that meets the instructions received in the project assignment"*
> [DIN EN 15038:2006].

DIN EN 15038 stipulates that it is crucial to use formatting, grammar, lexis, local conventions, register, style and terminology in a consistent and correct manner while perpetually considering the scopos of the translation. [DIN EN 15038:2006].

3.9 Checking

DIN EN 15038's definition corresponds to Horguelin and Brunette's definition of *"relecture"* or *"autorévision"*. ([Horguelin et al. 1998: p4] in [Rasmussen et al. 2011]) This process aims to ensure deliverable quality through self-revision (including checks on accuracy, on omissions or errors, and on fulfilment of specifications against the ST) by the vendor. [DIN EN 15038:2006].
Breedveld claims self-revision to be a sub-process in the translational workflow. [Breedveld 2002: p91 et seq.]

3.10 Revision

According to DIN EN 15038, revision includes checks against the ST as far as its *"suitability for the agreed purpose"* is concerned (inclusive of consistency, register/style, and terminology). [DIN EN 15038] Its main characteristic, also highlighted by Shih ([Shih

2006: p296] in [Rasmussen et al. 2011]), is that it is carried out by another translator who knows both the SL and the TL and has translation experience in the relevant domain. Regrettably, revision, proofreading and the like are, in reality, often used interchangeably.

Even if Mossop's definition of revision is too short-sighted as he claims it to be the stage in which translators identify deficiencies in order to make appropriate corrections. ([Mossop 2007 b: p109] in [Rasmussen et al. 2011]) In fact, he rather defines what EN 15038 understands as checking (self-revision). Yet, one ought to bear in mind that he introduced his very own distinction of processes, namely the one of self-revision and other-revision. ([Mossop 2007 b: p109] in [Rasmussen et al. 2011])

3.11 Review

In contrast to revision, review is an optional process in DIN EN 15038 and it is carried out upon the customer's request. It is another attempt at checking the TT *"on its suitability for the agreed purpose and respect for the conventions of the domain to which it belongs"*. [DIN EN 15038:2006] The main difference to revision is that it is monolingual. Furthermore, it is not carried out by a translator, but by an expert fluent and active in the TL, who does not necessarily have any translation experience, not to mention know the SL. [DIN EN 15038:2006]

In contrast to revision, the sole differences seem to lie in the competences of the revisers (translator vs. technical expert) and in the nature of the process (monolingual vs. Comparative and bilingual).

3.12 Proofreading

Proofreading is often confused with revision. According to DIN EN 15038 it is optional. However, as Schopp mentions, it is unclear which kind of check is required (e.g. substantial check which upgrades a TT quality from deliverable to publishable or rather a check of technical aspects). [Schopp 2007: p8]

3.13 Final Verification

Final verification is carried out by a DIN EN 15038-certified MLV (or DIN EN 15038-certified translators) in order to verify that the end product to be provided is fit for purpose. [DIN EN 15038:2006]

3.14 LSP Translation

One of the earliest definitions of Georges Mounin seems according to which technical translation covers everything not yet covered by the field of literary translation seems rather trivial from today's point of view. According to him, the crux of the problems inherent in defining LSP translation starts with terminology. [Mounin 1967: p21]
In fact, there are numerous terms denominating similar actions (special language translation, technical translation, scientific translation, language for special purposes (LSP) translation ...).

Not only this definition excludes normal, general texts, but also it neglects that there is a difference between LSP translation and its numerous sub-categories. As Jody Byrne put it *"it is useful to make the distinction between specialised and technical translation"*. [Byrne, 2006: p3]

And this is but one example of the different subcategories LSP translation entails. Likewise, Jumpelt called for a more careful division at a very early stage already. [Jumpelt 1961: p28]

According to Budin, LSP translation is a form of intercultural LSP communication as it allows for interlingual and intercultural knowledge transfer (cf. [Budin 2002: p82]).

What basically and most importantly defines LSP translation is the following:

> *„Für das Fachübersetzen charakteristisch ist die Fokussierung auf den Inhalt der zu übersetzenden Fachtexte, nämlich das sogenannte Sachwissen, das im Ausgangstext explizit gemacht wurde.“*[2]
> [Budin in 2002: p76]

As Budin and Stolze claim:

> *„Ohne umfangreiches Sachwissen ist es jedenfalls unmöglich, einen Fachtext zu verstehen“* […] *„Dies wiederum ist Voraussetzung für den Transferschritt bzw. die Zieltextproduktion“* […] [Budin 2001: p77] and that *„eine unverzichtbar Voraussetzung des Übersetzens in diesem Bereich“* [sind] *„auch Fachkenntnisse.“*
> [Stolze 1999: p150]

[2] Translation by the author: *LSP translation is characterised by an emphasis being put on the content of the source texts to be translated, and, therefore the technical knowledge inherent and expressed in the source text.*

Chapter 4

Measuring Quality - Assuring Quality - Enhancing Quality

As a result of the non-definition of market conditions and criteria, the translation market remains to be a rather undefined conglomerate of actors (at least in Austria) – with prices running the gamut from all-time lows to all-time highs and virtually no transparent quality criteria (for the customers). In order to better define and regulate the market, the academia and the industry have tried to find ways of how to, metaphorically speaking, separate the wheat from the chaff. Meanwhile, norms, standards, guidelines, whitepapers, and best practices have been issued by the economy (companies striving to excel), as well as by associations, organisations, the academia and so forth.

These measures notwithstanding, the task of regulating workflows, services, prices and quality standards remains work in progress. As the translation industry has come to include formerly non-translational fields, the discussions on quality are not only increasing, but they have become wider and more multifaceted, including localisation, CAT-tools, statistical data processing (herein TDP], the role of outsourcing tasks, terminology, and so forth.

The following section is to present a selection of important approaches, standards, and initiatives in the translation industry that deal with TQM. This will allow for a better understanding of the subject-matter. It is meant to illustrate that some approaches are translator-focused, that many more are focused on optimum workflows and, that the quantitative dimension (targeted at the translation product) has been neglected so far. Naturally, a quality-sensitive and quality-affirmative workflow is likely to produce better results. However, standardising the workflow alone is not enough. As long as the results are not measured, norms such as DIN EN 15038, even if they enhance transparency, will remain but a normative certificate. This is particularly so, since the translation industry does not use the same tools. In fact, there also is no workflow tool covering the entire workflow. Even those translators and agencies/MLVs that work with each other do not use the same tools (to give a short overview, Across, MemoQ, SDL Trados (Studio), XBench, Verifika, TLC Worx). Consequently, the definition of the single workflow stages is clearly insufficient as long as no standard settings (e.g. for the TQC process) are defined or an all-encompassing workflow tool has been developed.

Furthermore, as mentioned in the previous section, the industry also lacks a common terminology (i.e. revision vs. review vs. proofreading vs. self checks...), in the sense that terms are (even if an official definition exists such as in DIN EN 15038) used interchangeably.

4.1 Qualitative Language and Translation Initiatives

The following section presents a non-exhaustive selection of the most important qualitative language and translation norms, recommendations and standards and initiatives. This is followed by a presentation on quantitative language and translation norms.

As presented below, the ISO 9000 series, EUATC Quality Standard, and DIN 2345 are primarily targeted at the translation process, whereas DIN EN 15038 and ASTM Standards for language translation are targeted at the translator/vendor. As the DIN EN 15038 standard is the most far-reaching and well-known standard in Europe, it will be considered

in a more detailed way. This shall not only underline its merits, but help determine its limits and thus emphasize this paper's aim, which is to prove that there is need for either updating/adapting one of the norms (i.e. DIN EN 15038) or developing new, more holistic TQM models that go beyond TQC.

4.1.1 UNI 10547

The UNI 10547 standard (*Definizione dei servizi e delle attività delle imprese di traduzione ed interpretariato*) was a joint project developed by FEDER.CEN.TR.I and UNITER and covers both, translation and interpretation services. Yet, the provisions for interpretation services shall not be dealt with here.
After having been approved by UNI (*Ente Nazionale Italiano di Unificazione*) in 1996, it was the first quality standard in Europe that did not target individual translators but translation service providers. [Corpas Pastor 2006: p48]

Unfortunately, it does not contain any information on how to achieve service quality through TQC, with the exception that vendors should have a degree or diploma in translation studies or else, documented evidence of professional experience in the field. Instead, it rather refers to other general normative references such as UNI EN ISO 8402 (*Management of Quality and Quality Assurance. Terminology and Definitions*) and UNI EN 29004-2 (*Quality Management and Quality System Management. Guidelines*). [Corpas Pastor 2006: p48 et seq.]

The standard identifies planning of service , preparation of contract (fees, invoicing, payment, delivery, customer specifications, languages involved, translation purpose, technical details, human resources, working and delivery conditions, confidentiality clauses, and dispute settlement provisions), execution of service, service monitoring and control (*inter alia* revision, correction and completion of already translated texts) as work stages. The planning phase comprises functionalist elements (i.e. target text style, translation end use and customer specifications). [Corpas Pastor 2006: p48 et seq.]

4.1.2 ISO 9000 Series

The ISO 9000 series deals with (managing) quality. Basically, it is a quality manual that presents a process-oriented quality control procedure. However, it is not addressed at any particular industry. The accreditation process is very expensive. In the late 1990s, ISO 9000 ff was split into different norms (ISO 9001, 9002 and 9003). The difference between ISO 9001, ISO 9002, and ISO 9003 predominantly resides in their scope. Whereas ISO 9001 lays down certain criteria for design and development, production, installation and servicing; ISO 9002 does not cover issues of design or any control requirements. ISO 9003 merely deals with the inspection and testing of final products. [Binner 2002: p57 et seq.] However, ISO 9002 and ISO 9003 were withdrawn. Some MLVs prefer ISO 9000 certification to other forms of certification as it is well-known and renowned in many other industries. [Witzel 2011: p34]

Yet, it is very general in scope, for it exclusively certifies the existence of quality management in form of defined workflows in virtually any industrial sector. It is incumbent upon the certified actor to define these processes and have them certified. The translation product is not covered by it.

4.1.3 EUATC Quality Standard for Translation Companies

The EUATC (*European Union of Associations of Translation Companies*) was the result of DG XIII's fear that translation service suppliers, including MLVs, might be too scattered, and too unorganised to cope with the emerging information society[3]. [Kingscott 1996: p1]

Today, the EUATC is an umbrella organisation for national associations of translation companies in Europe and beyond its borders. Its aim is to provide a united voice in the industry, to further the highest standards of quality and business practice and to enhance translator training possibilities. [EUATC 2012 a]

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[3] Citing the French writer Claude Hagège: *„L'Europe sera multilingue, ou elle ne sera pas."*

The final version of its quality standard was published in 1999. [Corpas Pastor 2006: p51]

It clearly builds on earlier standards and initiatives such as UNI 10547, ATA Taalmerk, DIN 23445, ISO 9000 and the EUATC Code of Conduct. Conversely to DIN 2345 but similarly to UNI 10547, it is targeted at translation service providers or MLVs (rather than translators), therein defined as companies registered as an independent legal body, adequately insured for liability and member of a national association of translation companies (which is a member of the EUATC and subscribes to their Code of Conduct) who incorporate translations into a complete professional work process (through value-added services) and employ more than one full-time in-house translator.

It goes somehow further than any previously developed norms, standards and initiatives with regard to TQM (and TQC). By way of illustration, it calls for close cooperation between the stakeholders as well as for thorough project management. The latter ensures compliance with the standard by determining the procedures, monitoring internal statistics and evaluating the quality systems.
Unfortunately, it does neither refer to the result, nor to the qualification of translators (it only says they should be natives as a rule and have appropriate linguistic qualifications). [Corpas Pastor 2006: p51 et seq.]
According to their website, the standard was replaced by DIN EN 15038. [EUATC 2012 b]

4.1.4 DIN 2345

The German DIN 2345 standard (*Übersetzungsaufträge*) is often referred to as the predecessor of DIN EN 15038. It is no longer valid. [Haussteiner et al. 2007] Prepared in 1998 within the German Terminology Standards Committee by the Technical Committee *„Praxis der Terminologiearbeit“*, it was originally intended to become a European or International Standard.

Basically, it defines the relationship between customers and translation service providers (individual freelancers, companies, MLVs, agencies, etc.). It contains provisions on contract requirements and specifications concerning ST and TT (deadlines, file format,

query, offer, use of special hard- or software, price, non-disclosure, additional services, reference to the translator, potential return of transmitted materials, etc.), revisions, the contractual parties and work procedures. It is relevant for the scope of this paper that it defines the responsibilities incumbent upon MLV (translation service provider) and translator (e.g. the choice of suitable translators [university degree in translation or foreign languages or any other proof of translation competence], liability for the ST, responsibility to provide information on the function, purpose and intended audience of the TT as well as end-customer specifications and appropriate reference material regarding special terminology requirements, such as particular language policies, in-house terminology and existing and relevant in-house style guides, etc.) besides customer responsibilities. [Corpas Pastor 2006: p50 et seq.]

4.1.5 DIN EN 15038

DIN EN 15038 is the European standard currently in use that defines the translation process and establishes translation service requirements. It was approved of by the CEN in 2006 and has got national status in all its member states (incl. of Austria), replacing the provisions as set forth by DIN 2345. [Haussteiner et al. 2007] Dealing with *"human and technical resources, quality and project management, the contractual framework, and service procedures"* [DIN EN 15038: 2006], it is one of the most thorough quality norms that currently exist, yet, also targeted at the process as such.

The standard also defines terms[4] [DIN EN 15038:2006] that were (and are still), at times, used interchangeably and inconsistently. It is meant to sharpen the profile of the translation industry by creating a more professional image and contributing to harmonisation with other standardised industries ([Hübner 2007: p13] in [Biel 2011]) and to recognise the

[4] Terms defined in DIN EN 15038: *"added value services, competence, document, interpreting, locale, proofreading, register, review, reviewer, revise, reviser, source language, source text, target language, target text, text type convention, translate, translation service provider*, and *translator."* [DIN EN 15038: 2006] Regrettably, the terms are still used interchangeably at times.

versatility of the translation market. In fact, it defines the translation process as a process that entails the following stages:

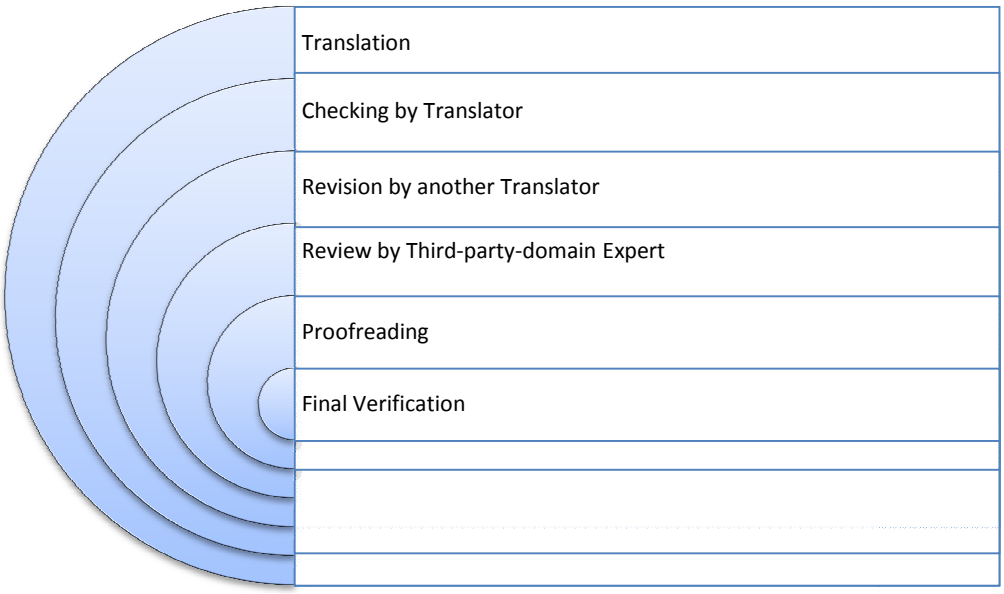

Figure 4.1: DIN EN 15038 TQM-Process [DIN EN 15038:2006]

Interestingly (and may be this was to avoid tremendous additional efforts, notably for PMEs and freelancers), only the revision stage (comparative check) is mandatory; the review stage (unilingual stage on the correct use of LSP for the target group) is not.

In fact, the value added generated through unilingual and comparative checks has provoked considerable controversy in the debates about the norm. While Gile favours unilingual checks ([Gile 1995: p111]) Mossop gives priority to comparative processes, starting with a check of the TT in order not to be influenced by the ST. [Mossop 2007 b: p153] in [Rasmussen et al. 2011] Likewise, the use of comparative analyses as such provokes controversy. By way of example, Horguelin and Brunette plead for skipping through the ST before checking the TT. ([Horguelin et al. 1998: p39] in [Rasmussen et al. 2011])

Brunette, Gagnon and Hine's study showed that comparative checks/revisions are more efficient in terms of accuracy, appropriateness (purpose and target group) and correctness. [Brunette et al. 2005] Yet, it ought to be noted that the latter is but one study and that the suspects were not used to unilingual checks/revisions.

Krings study, which is far wider in scope, raises an important question with regard to unilingual translation. Research focused on the output generated by unilingual revision and the risk to leave errors in meaning undetected? [Krings 2001: p544]

Building on DIN 2345, the standard also lays down certain preconditions for the acceptance and execution of orders, such as an analysis of the order according to certain criteria and a feasibility study, as well as mandatory project documentation (order number for cost estimates, and the actual job, included actors and scope of work, delivery dates). It equally includes provisions on mandatory proofreading by qualified third persons.[5] [DIN EN 15038]

Furthermore, involved sub-contractors must also abide by these rules. In case of deviation of any of these rules (e.g. if revision is impossible due to time limits) the customer has to be given notice thereof, and a document needs to be signed stating that the norm does not apply for that particular product. Besides, the norm foresees regular feedback and dialogue (concerning queries (translation questions) between the stakeholders). [DIN EN 15038:2006]

Finally, it lays down necessary criteria for a translator to qualify for DIN EN 15038 certification:

a) *"**Translating competence:** Translating competence comprises the ability to translate texts to the required level"* [...] *"It includes the ability to assess the problems of text comprehension and text production as well as the ability to render*

[5] This makes it particularly difficult for freelance translators to seek certification as they will not have the resources to ensure all these tasks.

the target text in accordance with the customer-TSP agreement" [...] *"and to justify the results.*

b) ***Linguistic and textual competence in the source language and the target language:*** *Linguistic and textual competence includes the ability to understand the source language and mastery of the target language. Textual competence requires knowledge of text type conventions for as wide a range of standard-language and specialised texts as possible, and includes the ability to apply this knowledge when producing texts.*

c) ***Research competence, information acquisition and processing:*** *Research competence includes the ability to efficiently acquire the additional linguistic and specialised knowledge necessary to understand the source text and to produce the target text. Research competence also requires experience in the use of research tools and the ability to develop suitable strategies for the efficient use of the information sources available.*

d) ***Cultural competence:*** *Cultural competence includes the ability to make use of information on the locale, behavioural standards and value systems that characterise the source and target cultures.*

e) ***Technical competence:*** *Technical competence comprises the abilities and skills required for the professional preparation and production of translations"*, which are deemed to have been met, if somebody makes proof of *"a formal higher education in translation (recognised degree); an equivalent qualification in any other subject plus a minimum of two years of documented experience in translating; at least five years of documented professional experience in translating."*

[DIN EN 15038:2006]

The standard is increasingly gaining recognition. This is supposed to exert pressure on the market (*inter alia* on training institutions for it calls for market-oriented training). Despite it being the most widely applied norm, there are some thorough limitations. For instance, it presumes that a standardised and controlled translation process will automatically lead to translation quality. Yet, it does not define the process in detail (for instance by determining KPIs). Neither are university curricula globally defined (cf. requirements for translators to

qualify for DIN EN 15038 certification described above) nor does the norm distinguish between first cycle and second cycle translation degrees[6]. [cf. Calvo 2011] It might also be viewed as insufficient to establish independent third-party revision as an obligatory key component of TQA if there are no minimum criteria connected to it. Yet, this is the case in DIN EN 15038.

Even if two translation agencies equally abide by the provisions set forth in DIN EN 15038, one may thus demand its revisers to revise 20,000 characters a day, another one demanding them to revise only 8,000 characters a day. Naturally, this will have an impact on the proof-readers'/revisers' performance and quality of the end-product.

This may also be derived from Künzli, who recorded spoken comments made by 10 subjects when revising. He concluded that the time spent on revision as well as the overall conception of the revision task (incl. review, proofreading, etc.) is decisive. Paraphrasing him, it might be more constructive to have a person have a more diverse job portfolio (so that they can free there mind at some point(s) of time) than spending the entire day on revision. [Künzli 2004]

Still, one should not undervalue the main object of the norm, which is to create a competitive advantage for MLVs by furnishing some sort of evidence of their commitment to quality. Some even argue that adherence to DIN EN 15038 may promote cooperation among certified MLVs or translation companies. [Arevalillo 2005]

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[6] As Calvo notes, it does not take into consideration that the deficient understanding of curriculum processes and the random application of translation skills may result in training programmes that are ineffective or do not meet the specific purposes (despite probably well-presented and rhetorically convincing contents). [Calvo 2011]

4.1.6 ASTM Standards

The *ASTM Standard for Language Translation F15.48* is a process-oriented consumer-focused guide to quality language translation. Unfortunately, no information was available for free by the time this paper was written. ASTM does not spread its ideas and approaches to the wider translation community or to end customers. Admittedly, other norms, such as DIN norms, are not available for free either. One might wonder, why the end customers are not granted access to norms that are supposed to heighten transparency for them (for free).

4.1.7 Plan-Do-Check-Act Approaches

Basic approaches such as those presented herein express initial ideas on the form any TQM model could take, as well as normative check lists. They shall not be dealt with exhaustively, here.

As most other industries, the translation industry has taken notice of the following *Plan-Do-Check-Act* (PDCA) approach that was first formulated in the 1950s in Japan:

- *"Plan - Objectives and processes are established in order to deliver results in accordance with specifications.*
- *Do - Processes are implemented.*
- *Check - The processes and results are monitored and evaluated against the objectives and specifications, and the outcome is reported.*
- *Act - Actions are applied to the outcome for necessary improvement."*

[Moen et al. 2009]

Muzii basically rephrased the PDCA approach and laid down four basic rules for reviewing or implementing TQM processes:

1. *"Write down what to do.*
2. *Do what you have written.*
3. *Substantiate what you have done.*
4. *Reflect on how to improve it."*

[Muzii 2009 a]

Zhang found one of the most challenging factors of TQM to be outsourcing. [Zhang 2007] This argument is to be repeatedly mentioned herein as his concerns on outsourcing are only being marginally discussed in literature whilst actually being overwhelmingly present in real life. Therefore, they are of utmost relevance today. In fact, he points to the following challenges project managers (PMs) are confronted with:

- *"Little knowledge on non-native languages,*
- *Little knowledge about localization suppliers,*
- *Potential bottlenecks due to cultural differences in communication."*

[Zhang 2007]

Using the PDCA (Plan-Do-Check-Act) principle, he proposed a rather normative and basic model which also relates to the EN ISO 9001 and is supposed to heighten transparency within a company. He defined the following stages for TQM: planning, definition of standards and quality objectives, measurement and monitoring processes (also resulting in quality control measures), as well as review, analysis, assessment and follow-up actions. [Zhang 2007]

As briefly summarised by means of Figure 4.2, different action sets comprise different actions and documentation standards that can be undertaken electronically or manually.

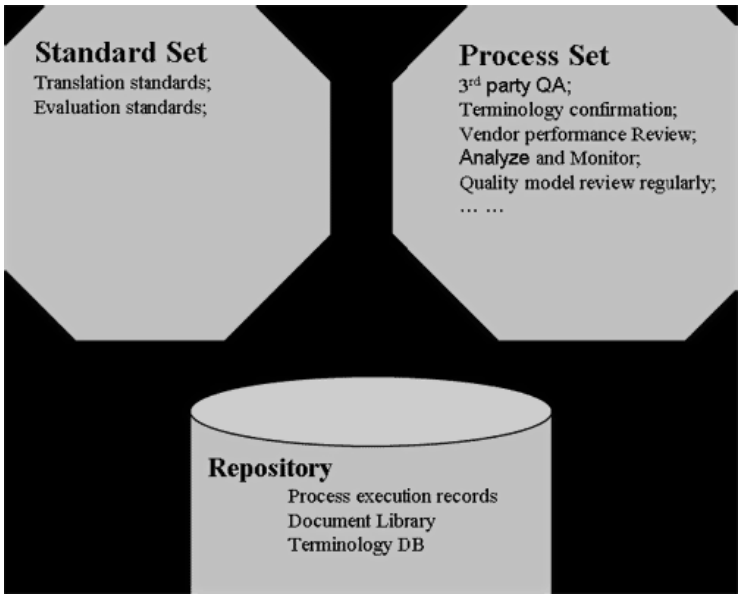

Figure 4.2: Standard Set - Process Set - Repository [Zhang 2007]

Standard Set

The Standard Set is divided into two categories and it simply entails the collection of all relevant documents for translation.

Translation Standard

This set is part of the Standard Set and it includes general translation standards, specific local translation standards (to be applied in designated language), and company-specific translation standards to be used and abided by vendors and PMs. [Zhang 2007]

Evaluation Standard

The notion of an evaluation standard is also part of the Standard Set and it basically refers to Quality Assessment procedures (in terms of measurable data). In accordance with Zhang (and EN ISO 9001), this involves:

1. *"Classification for translation error.*
2. *The weight of the identified translation error*
3. *Quantified index for quality (It can be labelled TQI "Translation Quality Index" or other)*
4. *The formula to get the quantified quality index.*
5. *Bonus: the positive score given to some good translation."*

[Zhang 2007]

Process Set

The Process Set refers to the collection of all TQM-related steps and documents and is supposed to contribute to QM effectiveness.

According to Zhang, the processes are meant to cover the following areas, whereby 1. can be outsourced and 2. to 5. are deemed to be less appropriate for outsourcing:

1. *"Quality evaluation process - Measure vendor's quality according to defined translation standard and evaluation standard (suggest using 3rd party QA vendor to measure the quality)*
2. *Vendor performance management process - Monitor vendor's performance (Quality index, customers feedback) and pursue continuous improvement action.*

3. *QMS review process - Analyze and review translation Quality Management system, provide improvement plan*
4. *Terminology Management Process - Create terminology that is consistent among all localization suppliers.*
5. *Training Process - Provide necessary training to internal staff and vendor."*

[Zhang 2007]

Repository

The repository serves the purpose of saving and storing documents, records, necessary information, terminology, etc.

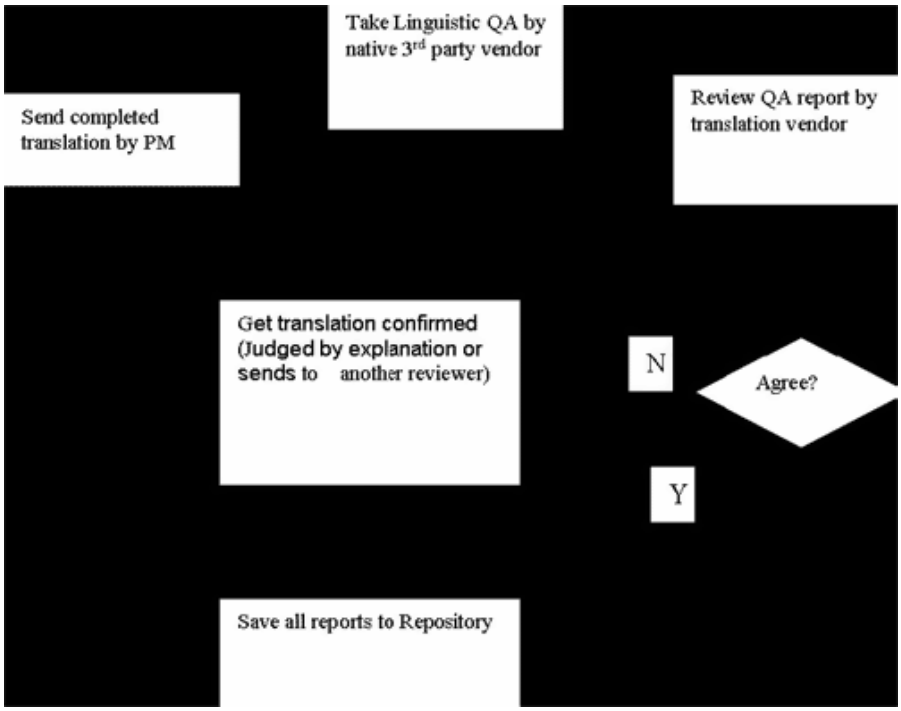

Figure 4.3: Zhang's TQM Model [Zhang 2007]

Unfortunately, Zhang's model only touches the surface. In fact, his model is rather a description of different processing steps. Even if he points to some very important characteristics of everyday life in the field of translation, the model he actually puts forward still lacks practical examples (particularly with regard to implementation,

assessment and follow-up stage). However, it is useful to the extent that it does describe workflow and documentation processes.

4.1.8 TEKOM

Founded in 1978, the German association deals with technical writing and information management. Accordingly, translation is but one field of its activities. [Schäfer 2011] Besides regular publications on issues like TQA, CAT, Tekom's TQM work group (*AG Qualitätsmanagement*) developed a catalogue on common standards for high-quality translations, including the following criteria:

- The ST is correctly and expressed in full in the TT,
- The translation is
    - comprehensible,
    - free from spelling and grammar errors,
    - unambiguous
    - terminologically consistent (including the use of correct terminology)
- [The content of the ST has been localised (= adapted to linguistic, cultural and legal conditions and particularities in the TC)],
- Consistency in comparison to any earlier translations,
- Dates of delivery were respected,
- The layout is in conformity with the conditions of the ST (screen masks, formatting, character sets, …)

[Oehmig 2006]

In contrast to other approaches, norms and initiatives Tekom's catalogue includes questions of formatting and layout. It also attaches importance to formal criteria such as delivery dates. [Oehmig 2006] While the first may provoke controversy, the latter is, in fact, an integral part of a quality check list, as in fact, the end customer will be, first, less able to judge the quality of the translation than the respect of deadlines, second, may encounter problems if the translation is not delivered in time (e.g. release of a new product, marketing campaigns, etc.), and third pays for the translation being delivered at a certain

date, for which any delay may damage the translation agency's reputation and, besides, incur costs.
However, the catalogue as presented by TEKOM may only serve the purpose of creating check lists. Without any metrics and defined weights, translation quality cannot be clearly assessed.

4.2 Quantitative Translation Quality Initiatives

As outlined in the previous section, there is scarcely any initiative that focuses on the translation product and its quality. The following section presents the few existing language and translation initiatives that are translation/product-focused and/or include Translation Data Processing (TDP).

Revision and similar actions are not only vital instruments for TQC; but also they provide information on vendor and output quality. This information could be used in TQA in a more sustainable form than "just" correction. This has been somehow neglected by the industry or, at least, not been promoted so far. By way of illustration: Having collected any such information through quality control in a transparent and reproducible way, a translation agency could use it to prove any customer complaints wrong or use it for PR by transparently reproducing their quality success rate.

The major advantage inherent in metrics is that they allow for both, measuring performance and identifying specific problems that (may) affect performance. Despite some reluctance in the field of quantitative TQA, it is, therefore, becoming increasingly necessary, as, and this has been admitted by the academia and the industry, error-free translations are ideal but a utopian presupposition when commanding translations. [Muzii 2009 a]

As such, TDP could prove a vital tool in TQA. Even if the subjective elements inherent in the translation activity will remain inassessible, objective criteria can be measured indeed. [Hoffmann et al. 1999: p41 et seq.] It could prove particularly significant in LSP, as it is its

underlying aim to communicate across language borders while avoiding cultural and stylistic elements as much as possible. [Stolze 2010: p13 et seq.]
There, an emphasis is put on clarity, precision and linguistic economy (inclusive of specification and condensation). As a consequence, LSP texts contain less (yet, not none at all) cultural and stylistic elements. ([Gläser 1998: p206] in [Stolze 2009])

Still, even though it ought to be in all stakeholders' interest to have an objective and fair evaluation tool, rather than let translations be judged by lay people, who can be subjective and unfair, TDP remains an issue unheard of for many of them:

> *"The unsuccessful attempt to introduce service-level agreements and metrics in the aforementioned European Standard, EN 15038:2006, lies on the belief that, generally speaking, the clients of a translation service do not have the necessary skills and competencies to drive the provision of service through requirements. In effect, they rely on the service provider to deliver a certain degree of intrinsic quality."*
> [Muzii 2009 a]

In their qualitative study based on interviews, Rasmussen and Schjoldager came to the same conclusion. It showed that only few companies in Denmark possess formalised guidelines and use revision parameters; yet they mostly are aware of textual and communicative aspects. [Rasmussen et al. 2011] And Denmark is likely to be but one example.

The training and education of translators may be partially held accountable for this situation (cf. Nicole Martínez Melis who criticises that didactical evaluation in training and education claiming that evaluation is only scarcely addressed and that professors develop, use and teach (if at all) their very own evaluation criteria. ([Martinez et al. 2001: p101 et seq.] in [Collombat 2009])

Still, it is the basic assumption of the underlying paper that quality and quality awareness can only be determined if they are measured.[7]

4.2.1 Quantitative Quality Management/Measurement

> *"The key here is quality over quantity."* [...] *"When establishing a metric, you need to know why you're measuring it, why it's important, and what's causing the results."*
> [Brue et al. 2006: p87]

Vitray, Operations Manager at McElroy Translation in Austin, Texas, highlights the importance of steady goal-setting at all stages when setting up a metric. According to him, it is crucial to limit the number of goals to approximately three goals, to make them specific and achievable and to monitor and to report any accomplishments or failures. (cf. [Vitray 2003])

This goes in line with general TDP approaches, which recommend the selection of small sets of important categories which are deemed to influence the target variable (quality in our case[8]).
Setting up TDP models and defining KPIs is a process that runs the gamut from preparation to statistical analysis, passing through calibration, sampling and measurement and resulting in continuous process improvement (Schiaffino et al. 2012: p83] Sound definitions are needed in order to obtain valid and retraceable results. Also, adjusted

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[7] It goes without saying that it is vital to clearly define what is to be measured and what is not. If, for instance, the pace of work is measured – leaving out an assessment of quality or errors – this might distort the results or result in sloppy work. Therefore, sound and meaningful KPIs need to be developed.

[8] The less biased an assessment is meant to become, the more important it is to determine categorise that can be measured by referring to some higher authorities (e.g. l'Académie Francaise, etc).

weights are needed in order to be able to bear in mind the diverse facets and significance of different errors and actions. [Schiaffino et al. 2012: p35]

An analysis of the existing literature showed that most initiatives in TDP are based on the depiction of errors. [Conde2011] As Schiaffino and Zearo put it:

> *"What I like and what you like may be very different, but we should have some means to agree on certain standards. We believe it is easier to agree on what constitutes an error rather than on what constitutes "quality" in the abstract, and that an important factor in quality is the absence of errors."*
> [Schiaffino et al. 2005: p2]

This approach is supported by the provisions in ISO 8402:1994, according to which a *"defect"* may be defined as *"the non-fulfilment of intended usage requirements."* [ISO 8402:1994] Consequently, the number of defects (or errors) can be used in a metric to single out the How's and Why's for a product or service not meeting any previously defined requirements.

Therefore, most attempts are targeted at factual, tangible errors and voluntarily neglect style. Naturally, judging style could result in bias and would not be constructive. Admittedly, most existing proposals on sound TDP for TQA would, following this line of reason, not be appropriate for use in marketing translation or any other translation activities concerning non-technical texts.

Particularly in highly entangled production processes that apply for MLVs (being customer and service-provider at the same time), there can be no all-encompassing metric – a fact highlighted by numerous stakeholders (cf. also [Schiaffino et al. 2005]). TDP is not about finding the reasons behind errors, but rather about measuring them, in order to both deliver high-quality services and be able to evaluate vendor performance. As already said, quality must be measured in terms of translation defect density by a comprehensive set of metrics and from several perspectives, as well as at several points during the production process. [Muzii 2009 a]

Unfortunately, the classification of errors still provokes controversy. On the one hand, the existing literature underlines that not only the nature, but also the importance of errors must be measured (cf. [Rieche 2004] [Darwish 2001] [Rosenmund 2001] [Koo et al. 2000]). Some relate error importance directly to its location.

Whilst Vollmar considers errors that (may) lead to the misinterpretation of significant portions of the text to be critical ([Vollmar 2001: p26] in [Conde 2011]), Hajdú considers the importance to depend on the point of the document in which it is found [Hajdú 2002: p249]. Likewise, house names titles, addresses, phone numbers and indexes are critical errors. ([House 2001: p151] in [Conde 2011])

The following three questions seem to be the cornerstones of any review model:

1) Is the translation grammatically correct?
2) Is the translation accurate?
3) Is the translation compliant with the glossary, style guide, guidelines, and customer instructions?

Below, different approaches on that issue shall be presented. However, it should be reiterated that quantitative assessment methods will always fall short on cultural traces represented in the syntactic structures, style and the pragmatic social function of certain texts (cf. [Stolze 2009]) and that they, therefore, are beyond the scope of any TDP model.

4.2.2 Translation Quality Index

Schiaffino and Zearo developed a Translation Quality Index (TQI) (a score being calculated on the basis of number and type of errors found in a translation and presented on a scale – whereby a score of 100 refers to an error-free translation (negative values are possible). [Schiaffino et al. 2005: p3]

According to them, any company developing TDP models first needs to select variables and sub-categories (, and sub-variables) (called Critical to Quality Categories = CTQs) and weights and determine the threshold for TQA tolerance levels. Yet, they do not claim their

categories, weights and tolerance thresholds to be the fittest ones for everybody in the translation industry. [Schiaffino et al. 2005: p3]

They propose to determine weights by looking at the consequences:

- *"**Critical errors** may require the recall of the localised product from the market*
- ***Major errors** may require a correction to the current release of the localised product*
- ***Minor errors** may require a correction for the next release of the localised product"*

[Schiaffino et al. 2012]

Their model comprises error-classification and severity classification (error points attributed to the error). They propose a rather flexible approach when it comes to judging severity as, according to them, revisers/reviewers are to decide upon the category. [Schiaffino et al. 2005: p3]

Pursuing such a liberal approach, severity of a mistake might be judged higher, if it occurred on the cover of a manual than if it occurred in a footnote. Indeed, there is a difference in reception if a mistake occurs on the cover of a manual or if it is located in a footnote. On the other hand, it is a subjective choice to make. Situations are not always clear. Uncontrolled liberal approaches might be to the detriment of the overall industry and transparency in TQA. Furthermore, it bears risks. Some actors might be determined to respect threshold levels or to "let them become respected" and therefore not measure quality diligently. Unfortunately, Schiaffino and Zearo's TQI approach remains but a normative concept; (even though this can be explained by them arguing that TQIs and metrics have to be adapted to the purpose they are meant to fulfil by the single stakeholders). A practical implementation of their model could look somewhat like the following:

Table 4.1: Example of a Quality Metric

Language Setup			
1 - Give appropriate weight to the four following categories (total must add up to 100%)			
Categories	Accuracy	50%	
	Style	15%	
	Grammar	30%	
	Formatting	5%	
	Total	100%	
2 - Within the **Accuracy** category, give appropriate weight to the four following items (total must add up to 100%)			
Accuracy	Incorrect meaning	40%	
	Non-standard terminolgy	20%	
	Inconsistent terminolgy	20%	
	Untranslated SL	20%	
	Total	100%	
3 - Within the **Style** category, give appropriate weight to the three following items (total must add up to 100%)			
Style	Wrong register	40%	
	Inappropriate anglicisms	30%	
	Inappropriate use of passive/active voice	30%	
	Total	100%	
4 - Within the **Grammar** category, give appropriate weight to the five following items (total must add up to 100%)			
Grammar	Spelling errors	20%	
	Typos	15%	
	Grammar errors	35%	
	Syntax errors	25%	
	Punctuation errors	5%	
	Total	100%	
5 - Within the **Formatting** category, give appropriate weight to the five following items (total must add up to 100%)			
Formatting	Layout errors	50%	
	Font errors	40%	
	Double spaces	10%	
	Total	100%	

Schiaffino and Zearo made an important contribution to TDP. Naturally, actors and stakeholders in the translation industry put an emphasis on different targets, so that parameters cannot be universally defined. Yet, their attempt scarcely exceeds the basic principles of statistical data management.

4.2.3 SAE J2450

One of the most extensive approaches to statistical data processing, SAE J2450, was presented by the Society of Automotive Engineers. As most TDP approaches for TQA, it proposes to calculate weighted numeric scores based on the number and severity of tagged errors. It outdoes other approaches, as it is not a normative initiative, but makes tangible propositions for how to design and conceive TDP models.

Their metric consists of the following four parts:

a) 7 error categories,
b) 2 error subcategories (e.g., serious and minor)
c) 2 meta-rules:
    1) the earliest listed primary category is to be chosen for ambiguous errors.
    2) serious dominates over minor in case of doubt
d) numeric weights (1-5, whereby 1 is the least and 5 the most severe one)).
e) if an error in the TT results from an error in the ST, it is is to be marked as "-SLT" (weight to be chosen=0)
f) if an error in the TT results from an error in the reference material as provided by the customer, the error is to be marked as LD (Legacy Data) (weight to be chosen=0)

[Dalla-Zuanna 2010: 23ff]

Meta-rules c1) and c2) are meant to ensure greater consistency in classification (given that different evaluators/reviewers/revisers are involved in the TQA process and might classify differently in case of doubt). The second one is meant to assign a priority to safety in technical translation. Yet, it might be worthwhile reflecting if – with regard to meta-rule 1) – it was not wiser to always choose the severest error category.

Errors – if subject to human judgement – are always subject to over- or undervaluation in terms of severity ; yet a "normal" regression to the mean is expected to normalise the results (the larger the text material being reviewed, the higher the "normalisation effect").

SAE J2450 leaves out any specifications about implementation and information processing and exclusively deals with the evaluation process. Precisely, the evaluation goes as follows:
Any non-stylistic error is first marked and classified according to its error category or, in case of doubt, according to the first error category appearing on the list in conformity with meta-rule 1, and, second, marked according to its severity in conformity with meta-rule 2. Subsequently, the respective weight for the error is applied as a multiplicator to each error so identified.

The sum of weighted scores is then divided by the number of words[9] which gives the Overall Documented Weighted Score (ODWS). As SAE J2450 was developed in order to measure translation quality in the car industry, one example making use of this norm is VW, where the threshold lies at an ODWS equal to or below 0.03.
The authors also point to the necessity of providing evaluators with ST and TT and available reference material. [Dalla-Zuanna 2010: p24]

4.2.3.1 Parameters

Table 4.2: SAE J2450 Categories

Category Name/Abbrev.	Sub-Classification/ Abbrev.	Weight (according to s/m)
Wrong Term/WT	Serious/s	5/2
Syntactic Error/SE	Minor/m	4/2
Omission/OM		4/2
Word Structure or Agreement Error/SA		4/2
Misspelling/SP		3/1
Punctuation Error/PE		2/1
Miscellaneous Error/ME		3/1

SAE J2450 draws up the following error categories, which are needed in order to standardise their approach:

Wrong term (WT)

WT comprises the following notions:

a) "Single word,

b) Multi-word phrase used as a single, lexical constituent (i.e. part of speech),

[9] Even if words are not considered to be appropriate entities, they appear more useful than any other entities in quantitative measurement.

c) Abbreviation,

d) Acronym,

e) Number or numeral,

f) or proper name, including trade names, brand names, registered trademarks, place names, and personal names."

[SAE 2001: p5]

Any term so defined is marked if it

- *"Violates a customer term glossary;*
- *Is in clear conflict with de facto standard translation(s) of the source language term in the specific"* [...] *"field*
- *Is inconsistent with other translations of the source language term in the same document or type of document unless the context for the source language term justifies the use of a different target language term, for example due to ambiguity of the source language term;*
- *Denotes a concept in the target language that is clearly and significantly different from the concept denoted by the source language term."*

[SAE 2001: p5]

Syntactic Error (SE)

A ST comprises the following incidents:

a) "A source term is assigned the wrong part of speech in its target language counterpart.

b) The target text contains an incorrect phrase structure, e.g., a relative clause when a verb phrase is needed.

c) The target language words are correct, but in the wrong linear order according to the syntactic rules of the target language."

[SAE 2001: p6]

Omission (OM)

An error should be classified as OM, if:

a) *"A continuous block of text in the source language has no counterpart in the target language text and, as a result, the semantics of the source text is absent in the translation;*
b) *A graphic which contains source language text has been deleted from the target language deliverable."*[10]

[SAE 2001: p7]

Word Structure or Agreement Error (SA)

A SA has occurred if:

a) *"An error of incorrect word structure has occurred if an otherwise correct target language word (or term) is expressed in an incorrect morphological form, e.g., case, gender, number, tense, prefix, suffix, infix, or any other inflection.*
b) *An error of agreement has occurred when two or more target language words disagree in any form of inflection as would be required by the grammatical rules of that language."*

[SAE 2001: p7]

Misspelling (MS)

The following actions fall under MS. A term that

a) *"Violates the spelling as stated in a customer glossary,*
b) *Violates the accepted norms for spelling in the target language,*
c) *Is written in an incorrect or inappropriate writing system for the target language."*

[SAE 2001: p8]

Punctuation Error (PE)

This includes any error that is considered to be one according to the grammatical rules of the TL.

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[10] Yet, this does not imply that the translation needs to be word-by-word or that there has to be 100% correspondence.

Miscellaneous Error (ME)

This category includes any linguistic error in the TT which is not clearly attributable to the existing categories other than stylistic error. [SAE 2001: p8 et seq.]

While SAE J2450 is by far the farthest developed metric in the translation industry, the difference between *Syntactic Error* and *Word Agreement* seems unclear. Furthermore, *Miscellaneous* might be a category too vague and wide to be fit for use.

SAE J2450 does not take into account the following aspects:

Variables referring to style

- Idiomacy as to the use of typical and customary terminology for the pertinent subject matter field?
- Competence and familiarity with the idiomatic, metaphoric, symbolic, ethical, and colloquial aspects
- Equivalency in style and level of speech between the source and target text?

Misinterpretation

- Understanding of content and subject matter of the source document

Format[11]

- Formatting
- Overall formatting and appearance (neat, clear, and visually, appealing)

Additions

- Existence of any text in the target document that is not contained in the source document and not deemed appropriate; this might also fall under Misinterpretation

Customer-specific provisions

- Customer requirements

[11] Yet, usually this would be a proof of the correct use of CAT-tools.

Even though weighting dimensions would have to be reassessed, this illustrates how actors might adapt the norm to their very own needs.

4.2.4 LISA Quality Metric

It has become hard to retrieve any information about LISA since it shut down its operations in February 2011.

Created in 1990, the Swiss-based trade body in the field of computer software translation Localization Industry Standards Association (LISA) ceased to exist in 2011. [LISA 2012][DePalma 2011] Until then, it was the only software translation association in the translation industry working out standards and rules, and representing its partners at ISO. [ISO 2011]

Basically its activities comprised the following fields:

- *"To gather, process and distribute information particularly relevant to the interests of LISA members in the fields of product internationalisation, localisation, multilingual documentation, translation technology, and production methods.*
- *To propose methodologies and standards that would enable all members and associates to achieve highest possible quality levels at greatest efficiency levels.*
- *To share non-proprietary processes and information, and to establish a repository of such information.*
- *To run conferences, workshops and other exclusive events.*
- *To conduct studies and sponsor the investigation of topics of interest that further the association's aims."*

[LISA 2012]

Among others, it developed a TDP approach in translation. Back then, this was a major breakthrough for the translation industry and it is still often referred to by numerous MLVs. The following graphic visualises LISA's approach to TDP:

Table 4.3: LISA - Quality Assurance Form [AppliedLanguage 2010]

Language:	**Reviewer:**		**Date:**	**Overall Result:** *Pass* **Category Result:** *Pass*		**Comments:**
Customer Name						
Project Name						
Project Number						
Project Manager						
			Minor	1 point		
Number of words	0		Major	5 points		
Max error points allowed	0		Critical	max. error points + 1		
Error Category	**Number of Errors - MINOR**	**Number of Errors - MAJOR**	**Number of Errors - CRITICAL**	**Total Error Points Scored**	**Max. Error Points Allowed**	**Result**
Mistranslation				0	0	*Pass*
Accuracy				0	0	*Pass*
Terminology				0	0	*Pass*
Language				0	0	*Pass*
Grammar				0	0	*Pass*
Semantics				0	0	*Pass*
Spelling				0	0	*Pass*
Punctuation				0	0	*Pass*
Style				0	0	*Pass*
Country				0	0	*Pass*
Consistency				0	0	*Pass*
Total	0	0	0	0	0	*Pass*

In comparison, it seems as if SAE J2450 built on LISA. In the LISA metric no threshold, but three severity weights were defined. The categories measured are similar to those of SAE J2450. Yet, in contrast, LISA does not exclude questions of style.

Unfortunately, some category names are misleading. By way of example, *country* as a category seems somehow misleading if no further explanation is available. It may only be

guessed whether this category refers to questions of idiomacy or not since detailed information on this metric was and the LISA website were completely withdrawn.

Interestingly, SAE J2450 and TQI put an emphasis on an overall score. LISA also looks at the individual scores for each category (cf. Pass/Fail criteria). Unfortunately, the graphical illustration alone would not tell anything on how to use, judge or assess these single scores.

4.2.5 Further Parameters

For the sake of completeness, some further models and thoughts about errors, the production of errors and error-free translation and the importance of style shall be briefly presented here.
Mossop developed a framework of parameters for revision, as set forth below:

Table 4.4: Mossop's Model of Revision Parameters (based on [Mossop 2007 b: p125 et seq.] in [Rasmussen et al. 2011])

Parameters	Specific parameters	Errors
A. Transfer	Accuracy	Does not mean what the source text means.
	Completeness	Deletes from the source-text message or adds to it.
B. Content	Logic	Does not make sense, e.g. is incoherent, contradictory or otherwise nonsensical.
	Facts	Is not true.
C. Language	Smoothness	Is not clear on first reading, e.g. is incohesive.
	Tailoring	Wrong choice of formality, technicality, tone, vocabulary.
	Sub-language	Wrong choice of words according to genre, field, etc.
	Idiom	Wrong word combination.
	Mechanics	Wrong spelling, punctuation, usage, house style, etc.
D. Presentation	Layout	Wrong margin, spacing, listing, etc.
	Typography	Wrong fonts.
	Organisation	Wrong pages, references, numbering, headings, etc.

As can be seen above, he differently assembles the different sub-categories (in comparison with the above-presented models).

Interestingly, Horguelin and Brunette's developed a model that also takes into account economic viability. ([Horguelin et al. 1998: p36 et seq.] in [Rasmussen et al. 2011])

They propose the following categories:

- *"Accuracy*
- *Correct Usage*
- *Readability*
- *Functional Adaptation*
- *Profitability"*

([Horguelin et al. 1998: p36 et seq.] in [Rasmussen et al. 2011])

The latter is also called *rentabilité* and it determines, if it is efficient revise or if it is more efficient to require retranslation instead (e.g. high number of mistakes). ([Horguelin et al. 1998: p36 et seq.] in [Rasmussen et al. 2011]) Refraining from TQM and sending the entire document back to the translator/reviser is common practice for PMs if a translation shows drastic deficiencies as everything else would be too time-consuming.

Daniel Gouadec distinguishes between *"évaluation empirique"*, *"évaluation raisonnée"* and *"évaluation positive"*.

The first consists of a global evaluation whether or not a translation is receivable and is based on intuition and experience (of the evaluator/reviser/reviewer, etc.), as well as of an evaluation of the time it took to produce a translation of acceptable quality and an evaluation of the importance of errors made.

The second revolves around the application of traditional error categories (wrong meaning, no meaning, grammar, etc.), the application of different weights/coefficients with regard to the importance of errors (error type + importance/impact and place).

Third, positive evaluation strategies highlight translation success (cf. [Gouadec 1989: p42 et seq.] in [Collombat 2009]).

It should be noted that this model was developed for evaluation processes in education and training cycles in translation (particularly highlighted by the third method) and not for MLVs.

It should also be noted that some scientists point to cultural elements in LSP texts, represented in their syntax[12,] text structure (which is less relevant in translation), and pragmatics. [Stolze 2009]

Others stress the importance of time pressure as an important push-factor for errors to be made, as there is a statistically significant correlation between time pressure and translation quality ([De Rooze 2003] in [Bayer 2008]). They correctly claim that there is a higher tendency to neglect TQC the higher time pressure is ([Hönig 1998: p341 et seq.] in [Bayer 2008]), and point to a correlation between output, error coping strategies, proper reflection and time pressure, ([Jensen 1999] in [Bayer 2008]), as well as a higher risk of consequential errors ([De Rooze 2003] in [Bayer 2008]). Therefore, it might be worthwhile to include assumptions on whether there was any over-dimensional time pressure or not into quantitative assessments of translation quality. This is also outlined by the magic triangle of process management:

[12] For instance, German legal language is more inclusive than legal English.

Figure 4.4: Analysis Dimensions [Bayer 2008]

4.2.6 (Poor) Quality Costs: Measuring TQA in Terms of Sustainable Economy

A common issue in translation (as well as elsewhere in QM) is the trade-off between time, price and quality[13]. From an economic point of view, the faster a translation is completed, the better it is for the MLV.[14] Yet, quality takes time. Achieving accuracy, in particular, is time-consuming.

[13] Unfortunately, this is, at times, being neglected in the scholarly discourse.

[14] Prices are normed in the translation industry (either based on characters or norm lines) and competition (unfortunately for lower prices, rather than quality) is high, so extra QM

As the underlying aim of this work is to propose QA strategies to be implemented in translation agencies, economic aspects should not be neglected at this place.

Let us once again look at the dilemma: Customers want to pay the lowest price possible, while still demanding the best service quality to be provided with. Vendors, however, want to get fair prices for their work. Comparable to an interwoven triple helix structure, these variables intersect and exert an influence upon each other. If we are to define the value of quality as the benefit of an activity minus its costs, the value of the end products or services can be calculated in terms of money

It is noteworthy that poor-quality results in a waste of time and effort for the user (e.g. plus extra support time and the cost of revision for the customer) whereas good quality is expressed via customer satisfaction and probably higher economic profit and will pay off in the long run.

Since the economic sustainability of a translation must be valid as much for the translator as for the customer Muzii, for instance, argues that a price must be chosen, which reflects service capability rather than the value of the end product. [Muzii 2009 b]

During the first international conference on specialised translation in Barcelona, the following formula to calculate the real cost of a translation referring to exactly this issue was presented in March 2000:

$$q = t \cdot \left(\frac{1+e}{1-e} \right) + r + a$$

- "q" = quotation
- "t" = translation
- "e" = error rate (percentage, $0 \leq e \leq 1$)

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or work or time, though incurring higher process costs, need not necessarily generate higher revenues at first glance, not to mention be economically viable.

- "r" = revision
- "a" = accessories

[Muzii 2009 b]

In addition, Harrington provides a full description of kinds of poor-quality costs:

- *"Prevention of poor quality: all costs involved in helping the employee to do the job right every time (also called cost-avoidance investment).*
- *Appraisal of poor quality: all costs expended to determine if an activity was done right every time. Often appraisal activities are too late and too little.*
- *Internal failure costs: the costs incurred by the company before a product is accepted by the customer because everyone did not do the job right every time.*
- *External failure costs: the costs incurred by the company because the appraisal system did not detect all errors before the product or service was delivered to the customer.*
- *Equipment poor quality costs: the investment in equipment used to measure, accept or control the product or service plus the cost of the space that equipment occupies. This includes the cost of the equipment used to print and report quality data (computers, printer…)."*

[EC Report 2012: p8]

More details are given in the table below, which describes the effects poor-quality costs may have.

Table 4.5: Cost of Poor-Quality according to Harrington [EC Report 2012: p8]

Cost	Description
Direct poor-quality costs • Controllable poor-quality cost – Prevention cost – Appraisal cost • Resultant poor-quality cost – Internal error cost – External error cost **Equipment poor-quality cost**	Direct COPQ can be directly derived from entries in the company ledger. • Controllable COPQ are directly controllable costs to ensure that only acceptable products and services reach the customer. • Resultant COPQ are costs incurred because unacceptable products and services were delivered to the customer, resulting from earlier decisions about how much to invest in controllable COPQ, i.e. all the money an organisation spends because things were not done right the first time every time[16]. • Internal error costs are the costs made to repair poor quality of a product before it has reached the customer; external error costs are the costs incurred when the product has already reached the customer. Equipment COPQ is costs to invest in equipment to measure, accept, or control a product or service. It is treated separately from controllable costs to accommodate the effects of depreciation.
Indirect poor-quality costs • Customer-incurred cost • Customer-dissatisfaction cost • Loss-of-reputation cost	Indirect COPQ is difficult to measure because it is a delayed result of time, effort, and financial costs incurred by the customer. These customer costs add up to lost sales and therefore do not appear in the company's ledger.

The table below includes examples of the above-described dimensions of poor-quality costs:

Table 4.6: Examples of Poor-Quality Costs [EC Report 2012: p9]

Cost element			Examples
Direct poor-quality costs	Controllable poor-quality costs	Prevention costs	• Quality planning (for test, inspection, audits, process control) • Education and training • Performing capability analyses • Conducting design reviews
		Appraisal costs	• Test and inspection • Supplier acceptance sampling • Auditing processes
	Resultant poor-quality costs	Internal error costs	• In-process scrap and rework • Troubleshooting and repairing • Design changes • Additional inventory required to support poor process yields and rejected lots • Re-inspection and retest of reworked items • Downgrading
		External error costs	• Sales returns and allowances • Service level agreement penalties • Complaint handling • Field service labour and parts costs incurred due to warranty obligations
	Equipment poor-quality costs		Micrometers, voltmeters, automated test equipment (but not equipment used to make the product)
Indirect poor-quality costs	Customer-incurred costs		• Loss of productivity due to product or service downtime • Travel costs and time spent to return defective product • Repair costs after warranty period • Backup product or service to cover failure periods
	Customer dissatisfaction costs		• Dissatisfaction shared by word of mouth
	Loos-of-reputation costs		• Customer perception of firm

In addition to the price problem, TQM measures must be chosen efficiently (in terms of economic viability). Therefore, stakeholders (in this case translation agencies) must find out where the break-even point lies:

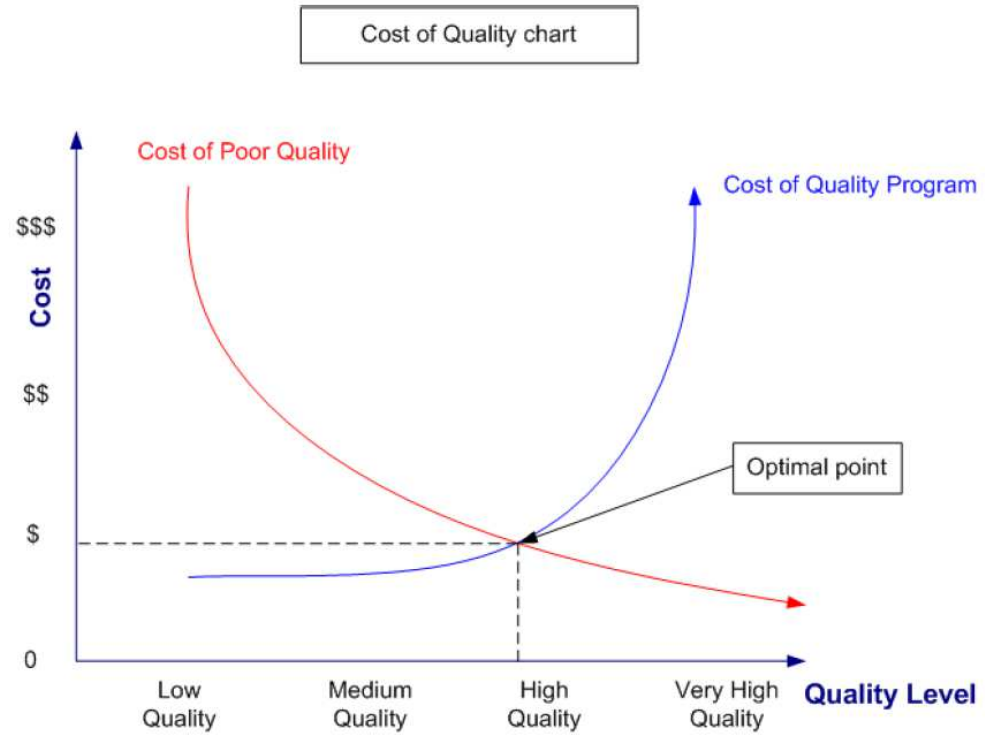

Figure 4.5: Balancing Cost of Quality Program and of Poor-Quality [EC Report 2012: p10]

4.3 Practical Examples

The following sub-chapter will present two real-life examples. It is worthwhile to note that substantive comparative data was lacking at the time this paper was set up so that a direct comparison is not possible. The examples shall rather be regarded as a stimulus for TQA and indicate possible forms of practical implementation.

4.3.1 APEX Translations - How to Implement SAE J2450

APEX Translations is one of the translation agencies, which have implemented SAE J2450. It provides an example of how to use and proceed with the SAE J2450 metric. Basically, their quality approach fosters all of the above-mentioned principles of TQA, and TQC. Their approach illustrates how important a multidimensional TQM system is.

They use memory-based assisted translation and CAT tools.[15] In addition, they charge TCs (Terminology Coordinators) with terminological TQA in cases where more than one translator works at a single source document.[16] [Apex 2010: p5 et seq.]

As required by most accreditation initiatives, they have introduced a mandatory revision stage; this is ensured by a third person, who checks for

- Completeness
- Correctness
- Spelling
- Punctuation
- Syntax
- Unusual style

[Apex 2010: p6]

Using – as mentioned above – the method described in the SAE Recommended Practice J2450 (Translation Quality Metric), Apex Translations Inc. calculates an *"Overall Document Weighted Score"* (ODWS) based on the provisions set forth in the SAE J2450, to quantitatively measure translation quality. [Apex 2010: p6]
Their threshold lies at 0.02 (ODWS), whereby three occurrences of exceeding this limit will lead to the exclusion of any approved vendor from their list of approved vendors. This score lies at 0.002 for yet unapproved translators who submit test translations. [Apex 2010: p7]

In fact, 100% of translations are proofread one time, 30% are proofread twice and 5% of them undergo sample checks. It is also important to note that any translation that contains errors in an ODWS score of 0.02 or higher after cursory evaluation by the first proof-reader is sent back to the translator for correction and re-submission before any additional revision is done on this translation. In the second revision stage, an error score between 0 - 0.002 is tolerable. Any results achieved in the proofreading stage are randomly checked by

[15] which is common practice in the translation industry

[16] Unfortunately, this step of quality control might be too expensive for some agencies.

a Chief Linguist. At this stage, there is no tolerance level with regard to mistakes (threshold=0). If any mistakes are, however, found, the translation is returned to the proof-reader. [Apex 2010: p6 et seq.]

4.3.1.1 Steady Data Processing

APEX Translations Inc. is but one example of MLVs that have introduced thorough and continuous monitoring systems which rely on the use of sound databases. With the help of their database, the following steps are carried out at APEX Translations Inc:

- Calculation and documentation of error frequency as well as nature and seriousness of errors per vendor
- Feedback (to vendor)
- Maintenance of individual performance records
- Translator database (decline in overall performance quality=indicated in database and visible for PMs); if deterioration of a vendor's performance according to results in database=vendor contacted by production manager
- Database including further information as to subject matter skills, educational background, etc. of all translators (employed, applicants, ...)

As to post-production TQA measures, APEX closely cooperates with their customers[17] by using semi-annual customer surveys (with questions targeted at the variables price, quality, delivery, and customer interaction).

4.3.2 The European Union

The European Union is probably the actor with the largest amount of in-house and external translators (including MLVs and freelance translators).
Naturally, it has integrated TQM in its daily activities, pursuing a poor-quality cost model. As such, it maintains the following action catalogue:

[17] Called Quality Verification

Table 4.7: Poor-Quality Costs in DGT [EC Report 2012: p11 et seq.]

Prevention costs	• Quality control of in-house translations (revision/cross-reading) • Specifications of calls for tender • Terminology • Documentary and language resources, style guides • Translation tools • Planning of translation (so as to ensure deadline compliance) • Dealing with unclear or poorly drafted originals[24] • Pre-processing of translation • Recruitment – selection procedures • Training
Appraisal costs	• Evaluations of operations • Customer satisfaction surveys • Evaluations of external translations • Audits
Internal error/failure costs	• Quality control of external translations + corrections • Applications of penalties to external translators in case of late delivery or insufficient quality • Handling of unsolicited feedback before publication • IT problems, leading to a slow-down of the translation process
External error/failure costs	• Handling of corrigendum requests • Handling unsolicited feedback after publication • Extra work created for managers who have to take action in case of poor quality • Costs of publishing a corrigendum (adoption of corrective act by the Commission + the EU Publications Office). • Handling of Ombudsman complaints • Loss of reputation for DGT (because of translation errors or late delivery) • Image damage for the Commission and the EU, possible political consequences (absence of response to political initiatives, less adherence to the EU project…) • Legal uncertainty; costs incurred by economic operators because of court cases and/or corrigenda with retroactive legal effects • Possible lawsuits holding the EU/the Commission liable for a damages suffered

As can be seen in Table 4.7 it has implemented TQA policies on all levels. However, they deal rather with poor-quality cost avoidance. The workflow chain at the European Union goes as follows:

1) *"Contacts with the requesting services: monitoring of translation demand, suggesting ways in which DGs could control demand, prioritising, anticipating time-table constraints.*
2) *Contacts with DGT's translation units (TUs): informing TUs of the translation forecasts, helping to organise the operational aspects of complex files or files accompanied by specific instructions (General Report, budget amended proposals, codifications/recasts, etc.).*
3) *Applying the Commission's Translation Strategy SEC (2006) 1486 (length, languages, type of document) and assessing the feasibility of the deadline*

indicated by the requester. Where necessary the Planning unit renegotiates the deadline with the requester.

4) *Quality checks of the originals of documents submitted for adoption by the Commission (Legis Write51, format, etc., not the content), availability of reference documents + categorising the documents as belonging to one type of text, which automatically allocates a quality control level to the document. If a TU detects errors or omissions, the Planning unit corrects these.*
5) *Random quality checks on formatting after the translation unit has closed them (LegisWrite, pictures and tables, number of footnotes....).”*

[EC Report 2012: p26]

Looking at all these aspects would go beyond the scope of this paper. Therefore, I will exclusively consider the aspects that concern vendor evaluation and vendor policies.

As of 2010, the EU had outsourced virtually 30% of its workload (= some 100,000 papers). The EU applies a 60:40 quality-price ratio and applies DIN EN 15038. [Ahrend 2011] Their vendor ranking is subject to monthly modification based on the translation quality provided as well as other variables. [EC Report 2012: p17] Since evaluation is an integral part of their translation policy, samples of all outsourced translations are evaluated on a regular basis (evaluation concerns 10% of the document; no less than 2 pages and no more than 10 pages per document). [EC Report 2012: p17] Its quality criteria comprise the following dimensions:

- Completeness (no unjustified omissions or additions)
- Coherence, accuracy and faithfulness (also in comparison to the ST);
- Proper quotations (includes checking them);
- Consistent terminology (*inter alia* in accordance with reference material);
- Clarity and register of target text;
- Syntax, spelling, punctuation, grammar, typography;
- Formatting (respecting the format of the ST (LegisWrite, including Codes und Tags);
- Deadline(s)

[EC Report 2008: p6 et seq.]

The above-listed variables determine the grades the EU assigns to a translation product. Grades range from *very good* to *unacceptable*, including the hierarchy *good*, *acceptable (new criterion) – just acceptable* (implies the need for revision and is rather negative), *below standard.* Vendors will be ranked in accordance with their results. [EC Report 2008: p6]

Poor quality is not always immediately penalised but has an immediate effect on one's ranking order (below standard is penalised with a warning and a 10% penalty (cf. Table 4.8)). [EC Report 2012] Actual delays in rendering the translation are immediately penalised by the EU (10% discount for each day of delay [EC Report 2012: p17]). More information on the grades is presented in Table 4.8:

Table 4.8: EU Quality Points [EC Report 2012: p17]

Unacceptable (0 points)	Requires extensive revision + involvement of DGT's internal committee for the evaluation of external translations.
Below standard (4 points)	Warning to the contractor + 10 % penalty.
Acceptable (6 points)	Mediocre quality, just about sufficient, but contractor moves down in the dynamic ranking[33].
Good (8 points)	Meets the quality criteria required in the tender specifications and is usable "as is" ("*en état*")[34].
Very good (10 points)	Requires no modifications by DGT.

For all translations deemed to represent any grade other than *very good*, feedback must (!) be provided to the vendor. All evaluations being below *good* have to be modified so that the end customer in the EU receives proper quality translations. While in theory, the DGT could have the translation sent back to the vendor, this hardly happens, since it would, first, imply higher costs due to the necessity of a second evaluation, and, second, result in a delay so that deadlines might not be met. [EC Report 2012: p18]

Even if each translation is revised and reviewed, this is an integral part of TQA. In theory (and even if this is not the case), each translation ought to be of perfect quality upon delivery, even more so, as DIN EN 15038 is perpetually applied. While in 2010 virtually 60% and 30% of total translation work were graded *very good* or *good*, respectively, 10% had to be revised and adapted. [EC Report 2012: p18]

This will also have incurred internal costs in terms of poor external translation costs. Further, it implies that in 40% of all cases feedback had to be given to the vendors involved. Again, this will have caused further poor-quality costs.[18]

Arthern (who once headed the former Council of the European Communities) developed an evaluation model of revisers for the EU in the 1980s and 1990s. He calculated their scores on the basis of the following formulae:

"S= X+F/2 + U/3" ([Arthern 1983] in [Mossop 2007 a])

and

"S= X+F"[19] ([Arthern 1991] in [Mossop 2007 a])

whereby

X designs a substantive error left unchanged or introduced by the reviser, F refers to a formal error left unchanged, U stands for an unnecessary modification made and C represents a necessary correction or improvement in readability. Both formulae produced virtually the same results. [Arthern 1983] in [Mossop 2007 a])

4.4 Remarks and State-of-the-Art

As illustrated in this chapter, quality is a burning issue in the translation industry. There is a common understanding that TQM is more than the use of CAT tools.

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[18] TQA and TQC are, even if separated by virtue of theory, closely connected so that often TQA will still result in TQC or at least in feedback to the vendor. Still, any agency should think about the degree at which any action should take place, as each action costs time and money.

[19] Revised formula

Even if they have simplified work in the translation industry by overwhelmingly contributing to consistency, coherence and a higher pace, they are somehow limited in scope, *inter alia*, due to the risk of:

- Misinterpretation of the ST
- Non-detection of poor stylistics or an inappropriate choice of language register
- Limitations (cannot do more than defined in the glossary being used for the check)
- Detection of false errors due to different parameters in ST and TT
- No rectification of errors inherent in the ST

[Gerasimov 2006]

At present, norms, approaches, initiatives and standards are either of normative nature or too vague. Even the ground-breaking DIN EN 15038 is deemed to be vague as it does not make provisions with regard to how revision shall take place (i.e. how many pages does a reviser (have to) revise per day; when will they be overcharged?), and reviewing is optional.

Moreover, most initiatives are targeted at the workflow. While optimising the workflow is likely to have an impact on the end product, this does not diminish the necessity to monitor the end result. Yet, only few initiatives really deal with the possibility of quantitatively assessing translation output and, what is more, go beyond any normative ideas.

Martinez et al. are not the only actors that urge for the introduction of scales. This includes the use of objective criteria that define error types, a scale concerning error seriousness based on functionalist criteria, yet without fixed coefficients, non-neglect of good solutions, and a flexible assessment methodology (whereby the latter provokes controversy). [Martinez et al. 2001]

It seems that until now, the fact that the translation field is so heterogeneous (with texts ranging from email correspondence to literary works and highly specialised LSP texts) has been widely used as a counter-argument to the quantification of data, not to mention TDP, and Quality Assessment. I dare claim that prior to discussing the degree of flexibility of any approaches, there is need to develop these approaches and formulate a sound basic methodology which allows for measuring those things that can objectively measured.

Performance Measurement Systems (PMS) are defined as follows:

> *„Prozess zur Identifizierung und Quantifizierung von Leistungsindikatoren (Kennzahlen), die eine Aussage über das Maß der Zielerreichung bez. Qualität, Zeit und Kosten ermöglichen (Performance). Die Leistung ganzer Unternehmen, von Geschäftsbereichen, Abteilungen u.Ä. muss aus verschiedenen Perspektiven gemessen werden.“*[20]
>
> [Gabler 2012]

They are already being frequently used by businesses other than the translation industry. They use key performance indicators (KPIs) and it might be worthwhile considering their introduction in the translation industry.

[20] Translation by the author: *Process to identify and quantify performance indicators (key numbers) which allow for information about the degree to which objectives have been reached, quality, time and costs incurred (performance). The performance of entities, sectors, departments and so on need to be measuring from different angles.*

Chapter 5

Implementation of a TDP Model for TQA - A Real Life Example

In real life, TQM is often exclusively carried out in the form of TQC and on a per-project basis. This results in inconsistent and subjective data, a lack of case and vendor histories as well as subjective data gathered from multiple sources[21] (that may, at times, express many subjective and preferential opinions). Even if it is widely acknowledged that TQA and TQC are closely connected, TQA[22] is, as mentioned in the first part of the underlying document, just normatively addressed in the translation discourse as such.

Having scrutinised existing ideas, approaches, standards and initiatives, the question of how to (best) design and implement holistic TQM models are deemed to remain unanswered, for there is *no tangible* guarantee for quality-output.

[21] e.g. PMs

[22] (meaning how to steadily and sustainably measure vendor performance and the evolution of the translation processes and quality delivered)

Since it is this paper's aim to prove that a more holistic TQM and thus a shift towards TQA are necessary, the following sections will, therefore, be dedicated to an empirical case study[23]:

eurocom Translation Services GmbH. (hereinafter eurocom) – a DIN EN 15038-certified Vienna-based MLV that provides its customers with translation and localisation services – has implemented a set of procedures to ensure TQM. Using eurocom as an example, the case study will present ways to implement a holistic TQA model including a new (steady) vendor and translation quality evaluation scheme.

The Workflow and Quality Metric developed by the company shall serve as a point of departure. Maintaining the principles of the Quality Metric, the following sections deal with both the respective tools used at the different stages of the workflow and the question of how TQA is implemented at each different stage.

5.1 Workflow and Quality Metric

The following sub-chapters will be dedicated to the company structure at eurocom, as well as the tools it uses for TQA, and more importantly, their new TQA approach, which is currently being developed[24]. (The modification of their TQM model and implementation of a new quality architecture was the result of their aim to enhance quality and transparency through a more holistic and multifaceted TDP model that can merge all relevant results into a retraceable total quality indicator.)

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[23] Empirical investigation of action chains and workflows are deemed to be the best and only way of formulating more holistic models. Since the entire industry uses different technology in their work processes, normative definitions of KPIs and TDP models would remain limited in scope.

[24] The process started in January 2012 and is still uncompleted.

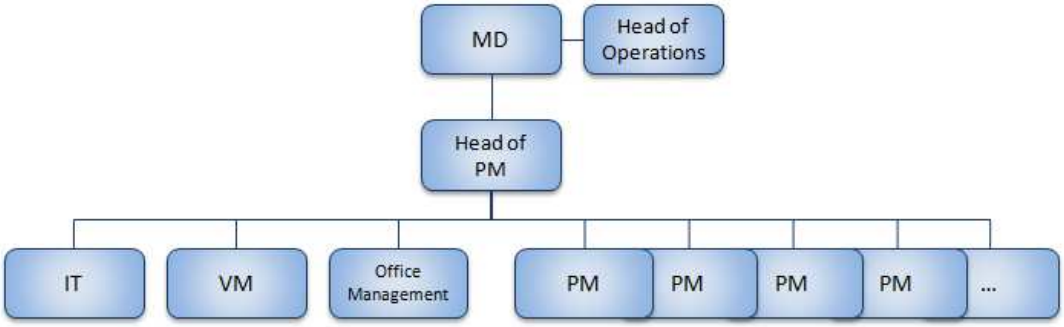


Figure 5.1: eurocom Company Structure

Having completely outsourced their translation services by assigning vendors who work according to the principles of DIN EN 15038 with those tasks, eurocom offers translation project management (whereby non-DIN-EN-15038- conform draft translations are only accepted if required; machine translations or draft translations are not part of their offer) and other activities such as TDP, terminology management, etc[25]. To do so, eurocom uses the tools below for TQM:

- LTC Worx
- VM Tool
- Verifika
- SDL Trados Studio
- SDL Passolo
- SDL Multiterm
- goAnalyze
- X-Bench (yet, used only by vendors)
- globalReview
- quickTerm
- smartQuery
- Additional smaller tools such as in-house developed macros
- Internal WIKI

[25] The scope of this paper, however, is too limited to consider any aspects apart from translation project management targeted at TQA.

It is worthwhile mentioning that eurocom closely collaborates with Vienna-based Kaleidoscope Ges.m.b.H. This has proven a very fruitful cooperation, as it has led to both further development of Kaleidoscope language solutions as well as the production of tailor-made solutions for eurocom. The following sections will deal with the roles of VM and PM, inclusive of all stakeholders involved in these processes.

In order to implement a thorough TQA model, the workflow cycle and the different tiers of action (where TQA checks and TDP make sense) must be clearly defined. Therefore, let us first take a look at their traditional workflow cycle:

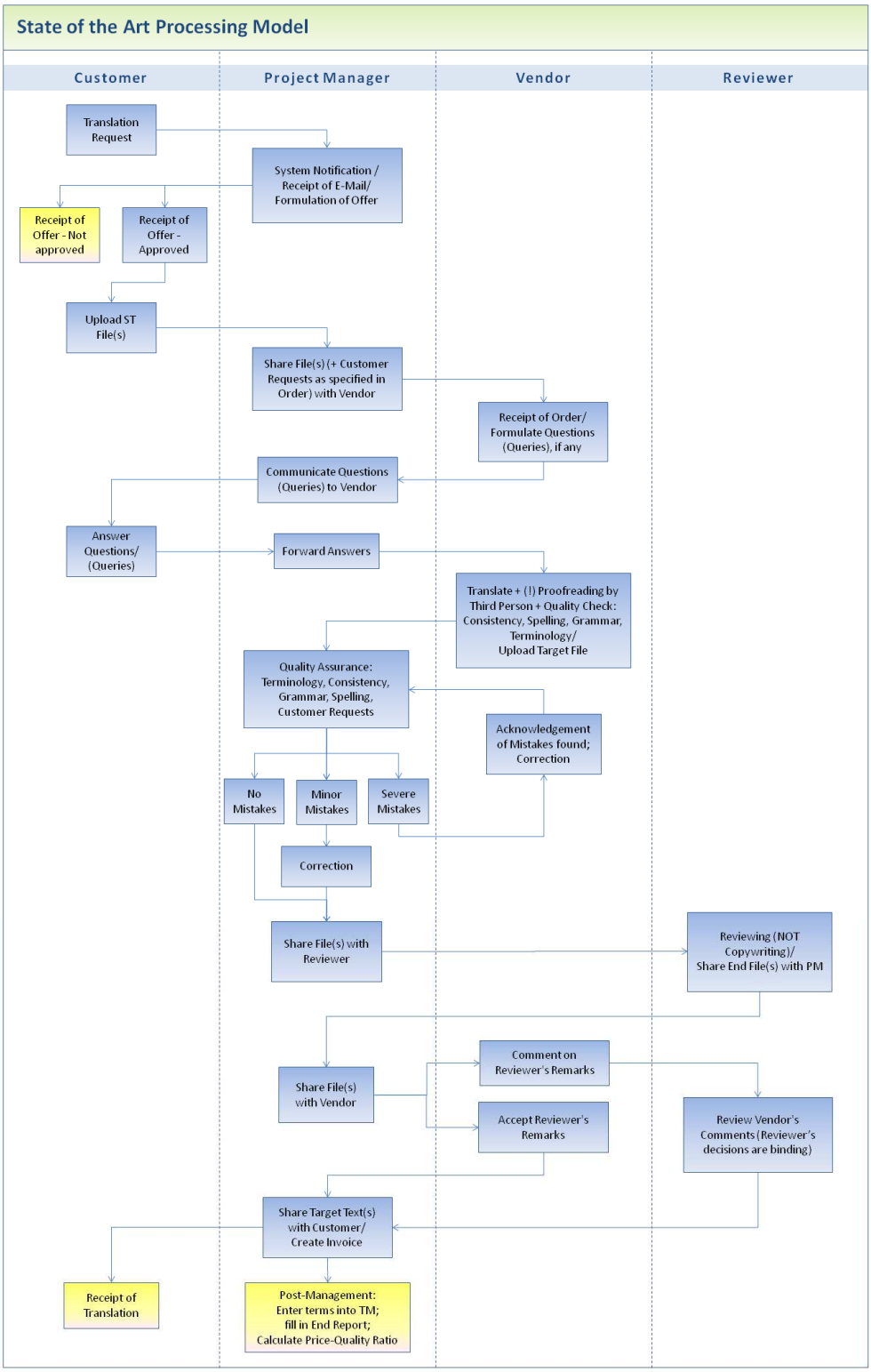


Figure 5.2: eurocom Old Workflow

It makes sense that, if meant to collect data from all stages of the workflow, TQA must be implemented at both the review and TQC-level (carried out by the PMs) and take into consideration other factors (, which are more different to tangibly measure) such as queries, feedback or customer complaints. Only then can it produce steady and meaningful results. Besides, additional factors, including but not limited to general information on deadlines, and constructive input by vendors, etc. may also play a role when measuring vendor performance.

Against this background an optimised TQA workflow model was developed at eurocom. The boxes in red are the modified stages and the boxes framed in red as well as the red arrows illustrate the intersections where TDP is to take place and produce KPIs:

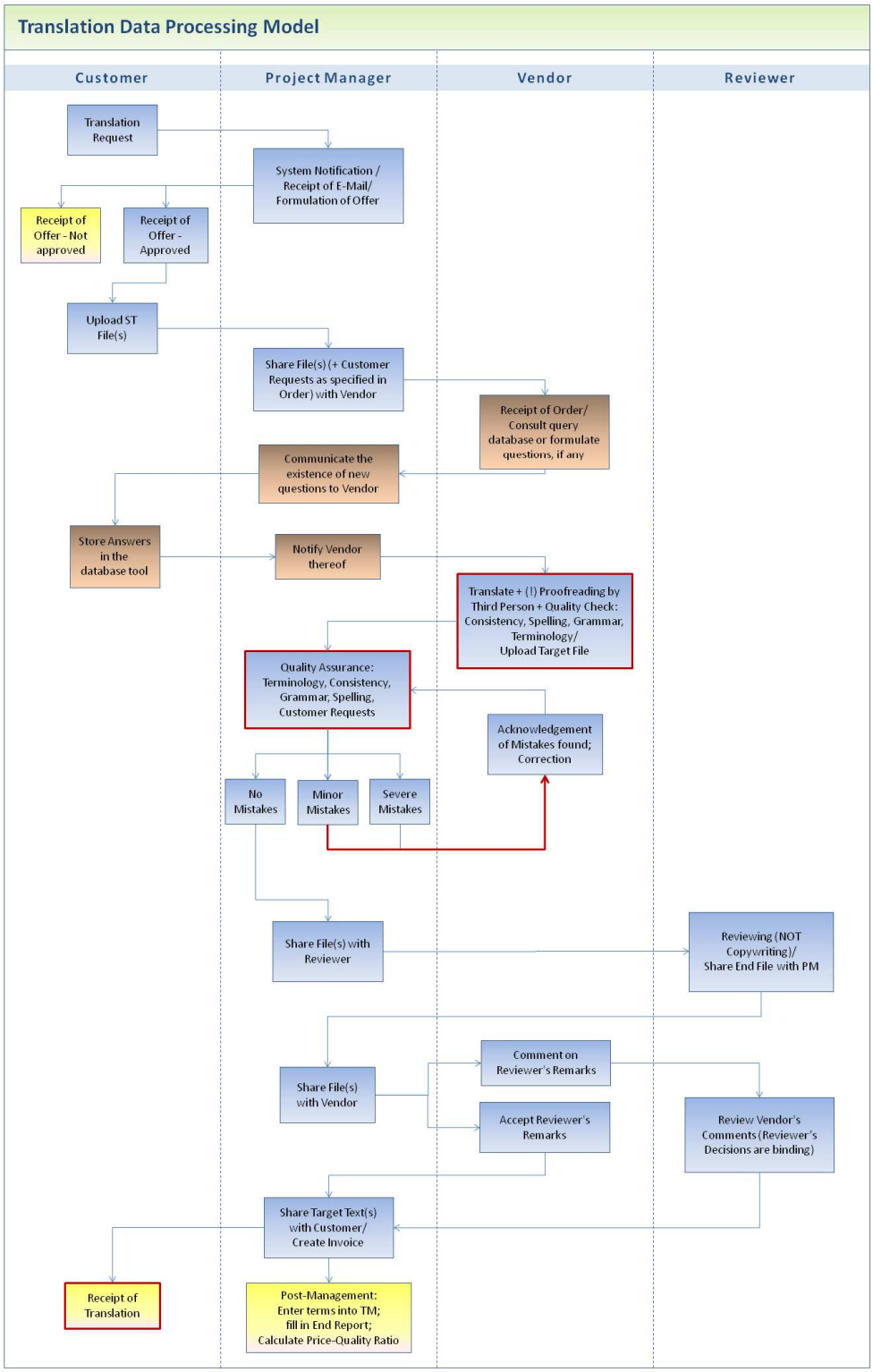


Figure 5.3: eurocom New Workflow

The next step in developing TDP models is to come up with a sound metric. As SAE J2450 seemed to be the best developed and therefore most suited language initiative for eurocom, it was chosen as a basis.

Figure 5.2 illustrates the traditional quality metric used by eurocom. In fact, two factors made it necessary to simplify the metric:
Firstly, TDP ought not to become too time-consuming (cf. break-even point and economic aspects in Chapter 4.2.6). Secondly, some actors involved in the TQA-process are not linguists (e.g. reviewers) but technical experts. Therefore, the set of chosen variables must be chosen and formulated in a way that it is concise and understandable even for non-linguists.

Table 5.1: eurocom Old Quality Metric - Example

Metric to Assess Translation Errors at eurocom

eurocom® TRANSLATE YOUR BIZ

Vendor	
Languages	
Project number	
Date	
# Words in the Source Text	
Deadlines	

Error categories	**WT**		**WM**		**OM**		**SE**		**SP**		**PE**		**ME**		
Points	2	5	2	5	2	4	2	4	1	3	1	2	1	3	
Document 1				1											5
Document 2							1								2
Document 3		1							1						6

Document 4															0
Document 5					1			1							6
Document 6			1												2
Document 7													1		1
Document 8															0
Document 9															0
Document 10															0
Document 11															0
Document 12															0
Document 13															0
Document 14															0
Document 15															0

Total	0	5	2	5	2	0	2	4	1	0	0	0	1	0	**FINAL RESULT**
	5		7		2		6		1		0		1		**0,0275**

Style	**Assessment**	**Comment(s)**
	Please choose	

General	**Comment(s)**

Key	WT	Wrong Term	Wrong term used
	WM	Wrong Meaning	Wrong meaning expressed

OM	Omission	Omission
SE	Structural Error	Grammar, syntax, etc.
SP	Misspelling	Spelling
PE	Punctuation Error	punctuation, *inter alia* numbers
ME	Miscellaneous	diverse, tags

green = mandatory fields (in accordance with the respective number of documents)
yellow = facultative fields (additional information)

In order to, thus, simplify the "old" metric, the variables as laid down in SAE J2450 were regrouped into Terminology, Grammar, Spelling, Wrong meaning, Style[26] and Other including a mandatory "Comment" field.

Table 5.2: eurocom New Quality Metric in Comparison to SAE J2450

Category Name/Abbrev.	Sub-Classification/Abbrev.	eurocom
Wrong Term/WT	Serious/s	Terminology
Syntactic Error/SE	Minor/m	Grammar, Style[27]
Omission/OM		Wrong meaning
Word Structure or Agreement Error/SA		Wrong Meaning, Style/Grammar[28]
Misspelling/SP		Grammar

[26] This is where eurocom's approach strongly differs from SAE J2450 and other approaches for TQM in LSP.

[27] Categorisation subject to modification

[28] Categorisation subject to modification

Punctuation Error/PE		Grammar
Miscellaneous Error/ME		Other
		Style

Regrouping the categories into new classes meant that the weights assigned by SAE J2450 could be maintained[29]. The following weights were finally jointly decided upon by eurocom and Committee 239 (ON-K 239) of the Austrian Standards Institute (Österreichisches Normungsinstitut), yet they are subject to modification.

Table 5.3: Adjusted Weights for eurocom TDP Model

Error categories	Terminology		Grammar/ Spelling		Wrong Meaning		Style		Other	
Points (minor/serious)	2	5	1	3	2	5	0	2	1	3

The above-presented quality metric will, henceforth, be used in the event of serious complaints. Then, a proven vendor will fill in the new quality metric (cf. Table 5.4). The end result will be inserted into a common VM tool[30].

Table 5.4: eurocom New Quality Metric

Evaluation of Translation Errors

eurocom® TRANSLATE YOUR BIZ

Vendor	
Language combination	
Project no.	

[29] It was proposed to take the average of the regrouped SAE J2450 categories.

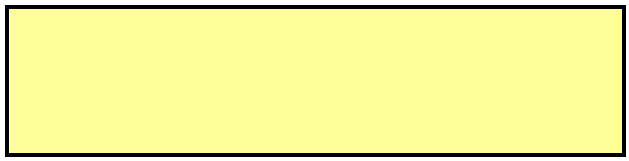
[30] At present, a solution on how to automatically process these results and merge them into a common VM tool, which collects, stores and processes the numerical end results of the new TQM process is being developed. One difficulty is to merge KPIs tangibly and weigh them correctly.

Client	
Reviewer	
Date	
Word count source text	
Delivery period (days)	

Error categories	TERMINOLOGY		GRAMMAR/ SPELLING		WRONG MEANING		STYLE		OTHER		
Points (minor/serious)	2	5	1	3	2	5	0	2	1	3	
	ENTER NUMBER OF ERRORS BELOW										
Sample file 1											0
Sample file 2											0
Sample file 3											0
Sample file 4											0
Sample file 5											0
Sample file 6											0
Sample file 7											0
Sample file 8											0
Sample file 9											0
Sample file 10											0
Sample file 11											0
Sample file 12											0
Sample file 13											0
Sample file 14											0
Sample file 15											0
TOTAL	0	0	0	0	0	0	0	0	0	0	**FINAL RESULT**
	0		0		0		0		0		

GENERAL IMPRESSION	**Evaluation**	**Comment**

MISCELLANEOUS	**Comment**



green = obligatory fields

yellow = optional fields (additional information)

As highlighted by some authors (cf. [Cruces Colado 2001: p816] [Martinez et al. 2001: p281 et seq.] Sager 1989 in [Waddington 1999: p35 et seq.] [Larose 1998: p16]), the error's effect or impact on the entire text must be taken into account when measuring translation quality. Accordingly, the two most common criteria relating to this characterisation are the nature/type of error and their importance/impact. [Conde 2011]

Yet, the question of how to objectively measure and determine the latter still provokes controversy. eurocom – and generally-speaking, the industry – will have to decide on how the criterion of importance should be successfully and coherently measured.

On the one hand, SAE J2450 already suggests a certain categorisation framework. On the other hand, some scientists also highlight another important fact: the location of the error and its influence on the impact, to which SAE J2450 does not refer to (cf. Chapter 4.1.7).

5.2 Vendor Management - Scope of Activities

Vendor Management (VM) lies at the core of a MLV's success. At eurocom, the VM unit screens applications for fitness. I have developed a draft for a candidate evaluation form for them, which is presented in Table 5.5, and subject to modification by eurocom. Any assessed criteria were integrated in accordance with existing norms and initiatives (particularly DIN EN 15038).

Table 5.5: Candidate Evaluation Form (Draft)

Candidate Evaluation Form (Draft)			
Mandatory Criteria			**Scoring**
1. Recognised higher education degree in translation; OR: Equivalent qualification in any other subject plus a minimum of two years of documented experience in translating; OR: At least five years of documented professional experience in translating. translating;			
2. Price-quality-ratio			
3. SDL/Trados			
4. Revision			
5. References			
6. Only translates into mother tongue			
7. Overall impression			
8. Additional years of experience (in accordance with point 1)			
9. Field(s) of specialisation			
Optional Criteria			
member of an association			
court-certified translator			
(Austrian) Trade Licence			
Result			
	Note:		
	PASS/FAIL Criteria	**Scoring**	**Scoring - highest score: 45**
	1. Recognised higher education degree in translation; OR: Equivalent qualification in any other subject plus a	Field(s) of specialisation	1/field; max. score: 5 points

	minimum of two years of documented experience in translating; OR: At least five years of documented professional experience in translating. translating;		
	Price	Additional years of experience (in accordance with point 1)	2/year; max. score: 20 points
		Only translates into mother tongue	1 point
		References	1- points
		Overall impression	+, -
		Revision/DIN EN 15038 certified	5/15
		SDL/Trados	5 points
		Optional criteria	+/-

At this point, it should be mentioned that, even if the criterion of association membership has been integrated into this form, it provokes controversy among experts. For instance, McDonough Dolmaya from York University, Canada, argues that associations have different codes of conduct for which the evaluation of membership as a measurable, meaningful variable is difficult. After having analysed 17 codes of conducts from different associations, she reached the following conclusion [McDonough Dolmaya 2011]:

Table 5.6: Ethical Issues addressed by different Associations [McDonough Dolmaya 2011]

Topics discussed in the TranslatorsCafe.com "Ethics and Professionalism" Forum		No. of codes with principles addressing these issues
Rates	245 posts	9 of 17
Professional development	222 posts	9 of 17
Conflict resolution (also included in "rates")	85 posts	11 of 17
Professionalism	75 posts	17 of 17
Accuracy	74 posts	12 of 17
Subcontracting	50 posts	15 of 17
Advertising	43 posts	9 of 17
Working languages	25 posts	8 of 17
Software/Technology	33 posts	0 of 17
Competence	16 posts	17 of 17
Terms/Working conditions	23 posts	3 of 17
Texts for illegal/immoral ends	17 posts	5 of 17
Copyright	11 posts	2 of 17

Nevertheless, the criterion of associate membership may be viewed as a plus since it is an attempt to attain increased transparency and enhanced quality.

Those applicants who fulfil the necessary criteria to be eligible and who attain the best results in the vendor evaluation form (cf. Table 5.5) make it into the final selection stage where they must provide eurocom with a test translation. Only if the latter contains a total of errors lower than the threshold of 0.03 (according to eurocom's quality metric), will the vendor be added to the vendor pool that is part of the company's own VM tool.

At present, one employee is in charge of VM. Her duties include vendor recruiting and vendor development as well as the newly implemented TQA supervision. Overall strategic VM is situated with the Head of Operations.

Once a vendor has been added to the vendor list and has finished their first project, the VM unit decides on their position on the ranking list, henceforth, according to the results

obtained in TQA (cf. Table 5.7). They are ranked according to a hierarchy of points from 0-20. This is illustrated below:

Table 5.7: Vendor Ranking

Points	Result
0	Blacklisted (after a project showed severe mistakes or there are continuous quality issued)
1	Worst alternative
3	Entered into system, no project assigned yet, recommended by VM
4	As 3 but already completed test translation
5	Good vendor, used regularly
10	Excellent vendor
20	Vendor of trust

This is a huge step forward. Until now, this has been done in accordance to the discussions led in the weekly PM meetings. The latter bears risks of bias. In the worst case of errors, a vendor was (and will be) blacklisted internally. Yet, this is the very last step after all other quality measures (including feedback and communication) have failed, and such action will not be generally communicated to vendors.

5.3 Project Management - Scope of Activities

Project Managers (PMs) are eurocom's motor and ensure smooth functioning processes. Their activities range from the receipt of any requests and orders by customers to the transfer of the target text(s), including TM management, invoicing, etc.[31]

On the one hand, eurocom – as a DIN EN 15038 certified business – exclusively works with subcontractors (in this case: vendors) who work in conformity with DIN EN 15038. On the other hand, there are two further stages of TQA they use in order to provide top-quality work, whereby one of them is mandatory and the other one is a facultative service

[31] It is worthwhile noting that big and regular customers work with PM teams at eurocom.

(subject to the customer's requirements). In the mandatory stage the PMs check the entire translation (cf. Chapter 5.1)[32].

The voluntary stage of reviewing is – as proposed by DIN EN 15038 – an in-country review supervised by the PM and carried out by external experts at the customer's company.
Furthermore, in addition to their duties of project management, each PM is assigned one task of specialisation such as DTP or terminology. This way, the company can harness synergies.

PMs receive customer requests either through Microsoft Outlook or directly via the Project Management tool LTC Worx. As stipulated by DIN EN 15038, requests (even though they need not necessarily be followed by an order) are assigned quote numbers. LTC Worx can be used for the entire management process, as it can be accessed (with different rights and features) by PMs, vendors and customers alike.

Once the customer approves the order and all questions are settled, they upload the files to be translated and add all relevant data. The PM selects an available vendor considered appropriate for the task (the vendor list is displayed in LTC Worx), bearing in mind a great number of variables such as price or that translation works ordered by big and regular customers always require the same vendor. Besides recruiting an appropriate vendor, the PM forwards the customer an offer, which is generated by automatically analysing the source document via goAnalyze or SDL Studio.

Offering CAT-assisted translation, eurocom offers translation-adjusted prices (taking into consideration repetition and n%-matches in the source text) for each translation task. Customer price lists are stored in LTC Worx, and the quote is produced automatically by

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[32] which would not be necessary according to DIN EN 15038 as translation and revisions are assured by the subcontractors and a translation is deemed to be "perfect" by the time it is transmitted to eurocom

the system. Similarly, vendor price lists are stored in the system, and on the basis of the word count, POs (purchase orders) for vendors are produced.

In the translation process, vendors may send questions (queries) to the PM by using smartQuery (cf. Chapter 5.4.1). The PM contacts the customer (who may then contact experts in the respective fields) and gets back to the vendors as soon as an answer has been obtained. Vendors can directly access the database for the respective customer. This also is an advantage if the same question has not been raised and answered, yet, for it needs to be formulated once and will be stored in the database in case it might pop up again.

After the vendor submits the proofread translation, the PM uses Verifika (cf. Chapter 5.5) in order to recheck the translation (yet, the grammar check remains with Microsoft Word). It is worthwhile noting that the parameters used for checking are communicated to the vendors in advance. The latter are required to ensure (via SDL Trados and Xbench (free program)) that the parameters have been respected. Even if this is not always the case, the PM check ought to prove that a translation is error-free.

5.3.1 LTC Worx

LTC Worx is the main project management tool used at eurocom. It connects translation process management and global content management not only with accounting and VM tools, but also with front-end tools for lead and customer relationship management.
Its main features include:

- Integration with SDL Trados Studio 2009 and Automation of the quoting process
- General Project Management
- Translation Management
- Request Management
- Order Management
- Vendor Management
- Reduced time, effort, and cost of large multilingual projects.

- Integration between *Quickquoter* function and Trados Studio 2009[33]
- Finances/Invoicing (cf. [LTC 2010])

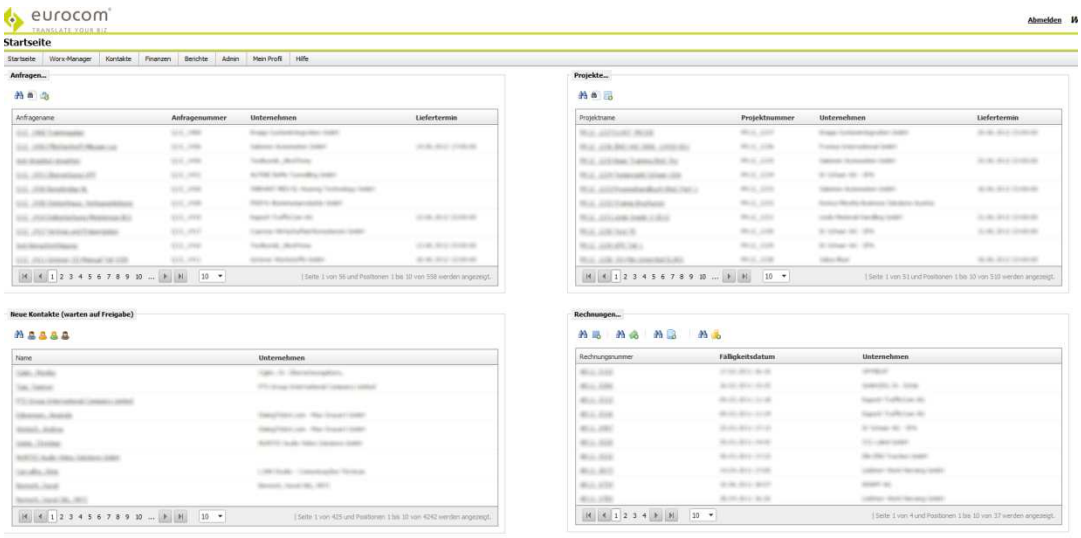

Figure 5.4: LTC Worx Menu

Once a request has been formulated by the customer, the available information is inserted into LTC Worx, where it is assigned a number and relevant customer data is added (cf. upper left column in Figure 5.5). If approved (after a proposal and cost estimate were forwarded to the end-customer), the request is transformed into a project (cf. upper right column in Figure 5.5). The cost estimate is produced using an LTC Worx and Trados:

[33] a CAT translation suite, which present a platform capable of generating accurate quotes in a faster and more fluid fashion

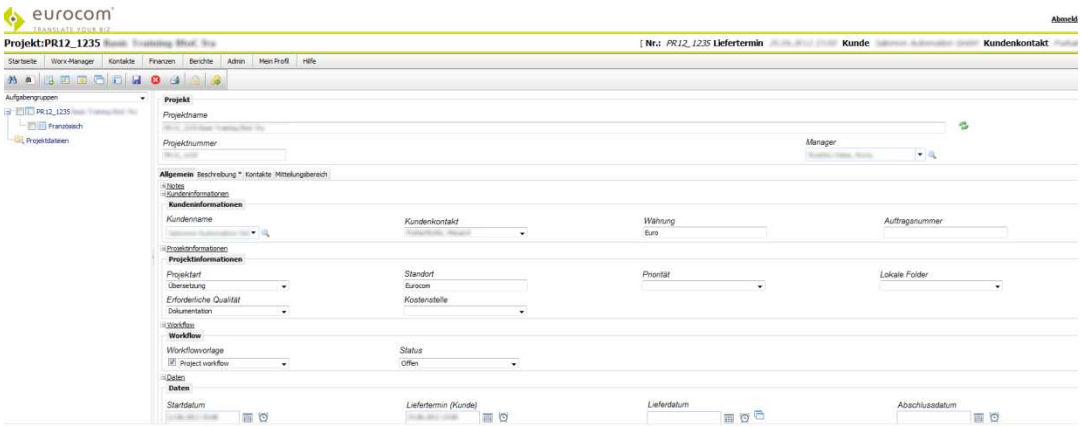

Figure 5.5: LTC Worx Request Management

Having selected the documents to be analysed, the PMs subsequently choose the TM against which the source texts are to be analysed (cf. Figure 5.6, Figure 5.7 and Figure 5.8).

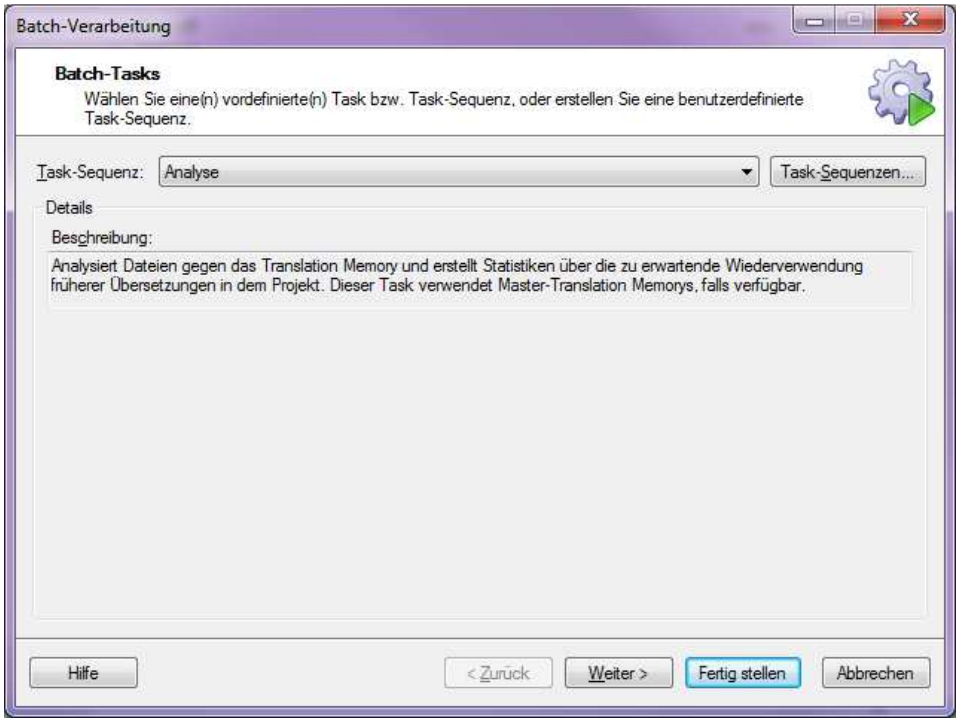

Figure 5.6: eurocom Source Text Analysis 1

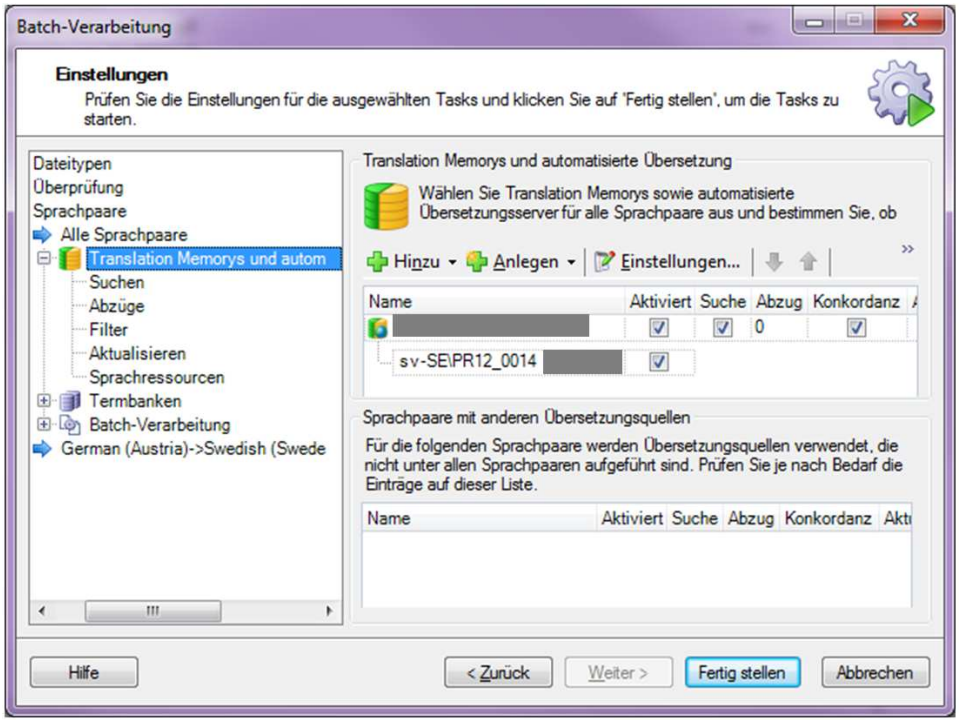

Figure 5.7: eurocom Source Text Analysis 2

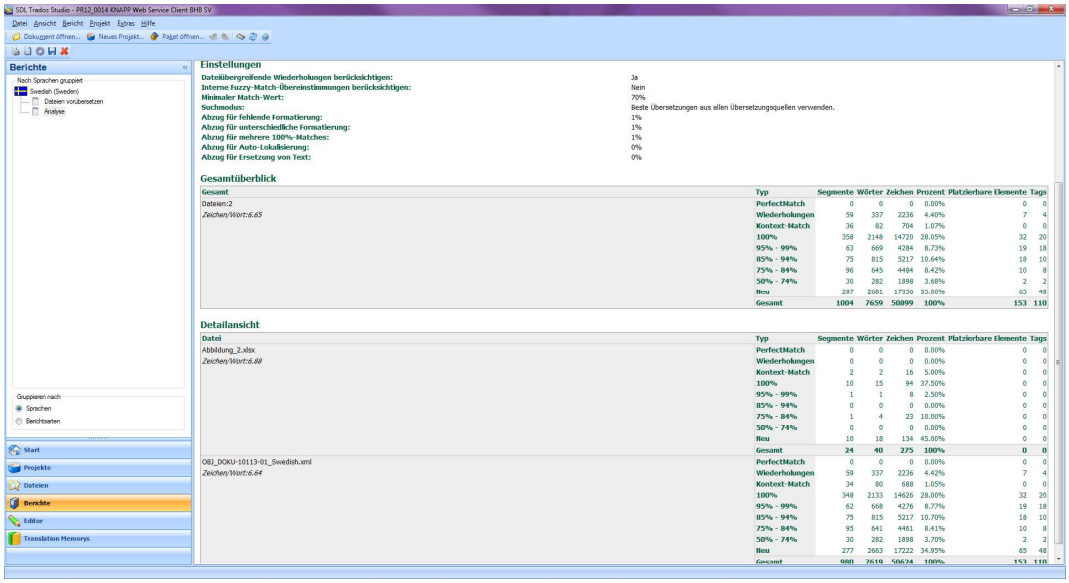

Figure 5.8: eurocom Source Text Analysis 3

5.4 Translation Data Processing for Quality Control

The following section is dedicated to the integration of TDP into TQA. By retracing the workflow at eurocom, I will demonstrate how TQC is carried out at eurocom and prove that TDP can be inserted into an existing TQC architecture in order to create a holistic TQA model. It goes without saying that the tools explained below are, like the case study presented herein, an example used for the sake of empiricism.

5.4.1 smartQuery

smartQuery is Kaleidoscope's approach on how to turn queries into know-how. The company summarizes its inherent advantages as follows:

- *"log and categorise translator queries according to set but customisable criteria*
- *answer, return and delegate queries between vendors, PMs, customers and subject matter experts*
- *search existing queries according to languages, customers, projects, vendors, etc.*
- *push language-independent queries and answers to the entire translator team in all target languages*
- *report errors in the source text back to the authors in a structured manner*
- *re-use terminological queries as term candidates for quickTerm or as a TBX export for term bases"*

[smartQuery 2011: p3]

The system - a role- and web-based web-portal - features status and user filters, which enable users to receive task lists of open queries and everything related thereto (inclusive of a digest function). [smartQuery 2012 c]

The categorised query management system hides numerous advantages:
First and beforehand categorised query management allows for traceability. Furthermore, the program ensures that all actors are up-to-date. Already before submitting a query, they can check in the system if a query has already been submitted and answered in the past. Even if it has not yet been submitted and answered, logging queries results in the

collection of queries – sound knowledge of which the PMs will always have control of (due to the database that is being created). [smartQuery 2012 c]

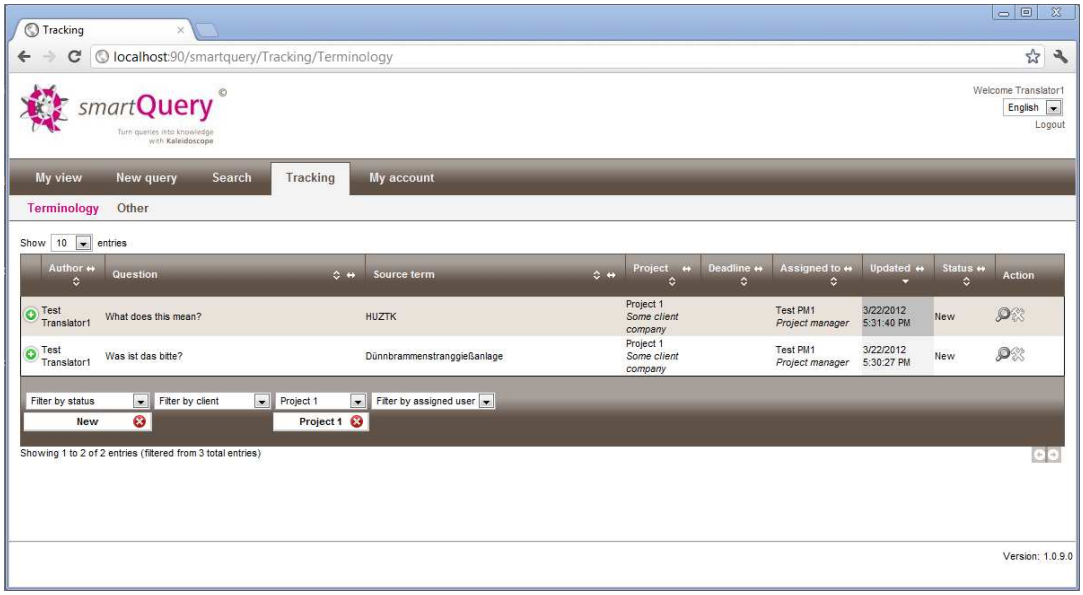

Figure 5.9: smartQuery - Query Database

Further advantages consist of consistency and time-efficiency as the PMs and the customers will not be bothered with answering queries more often than once. [smartQuery 2012 b] The questions are divided into sub-categories. Finally, smartQuery ensures that information is exclusively used in a customer-specific way so that no business secrets are revealed. [smartQuery 2012 a]

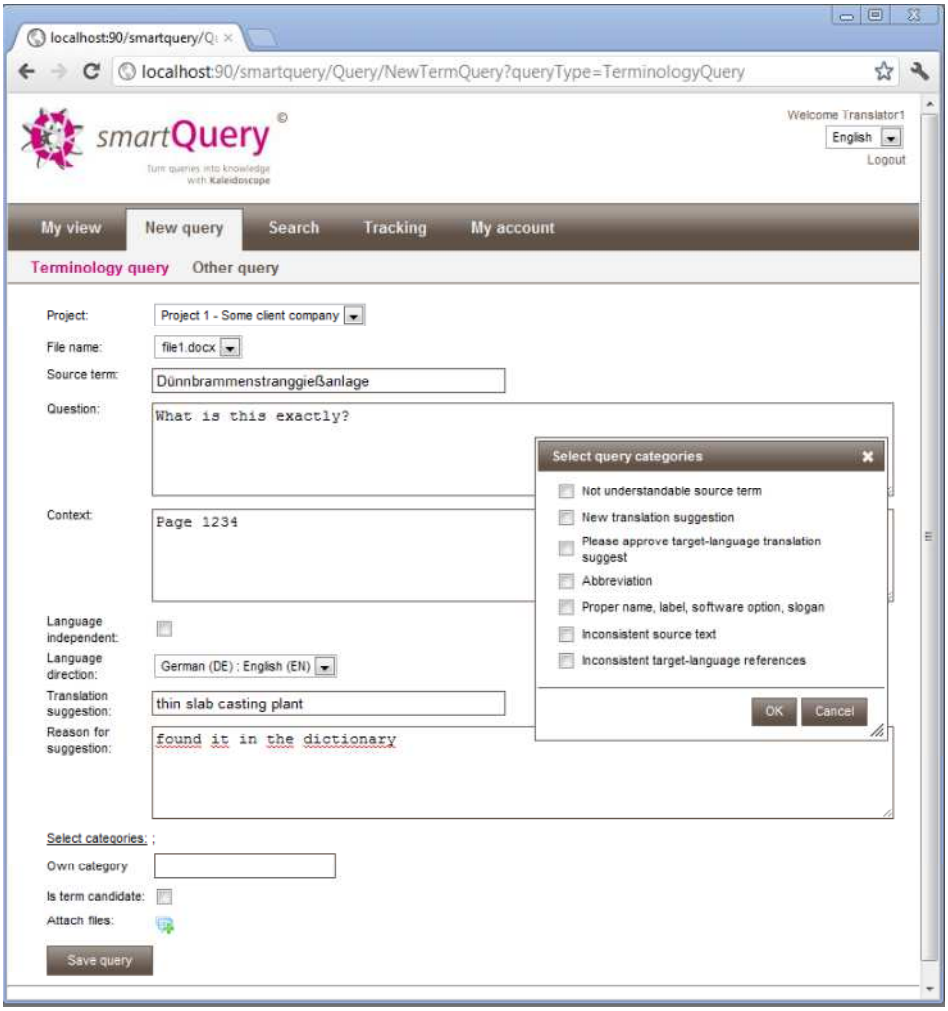

Figure 5.10: smartQuery - Surface Layout

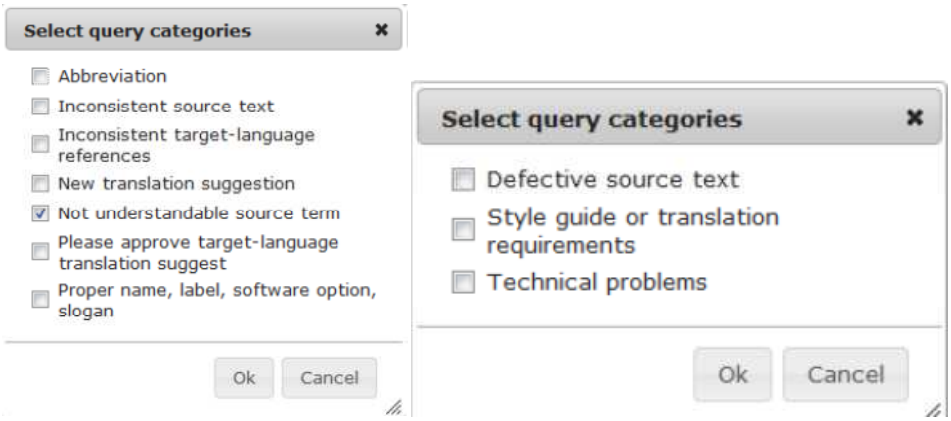

Figure 5.11: smartQuery - Query Categories

Even though an infinite number of roles can be defined via smartQuery, one very typical setting may look as follows:

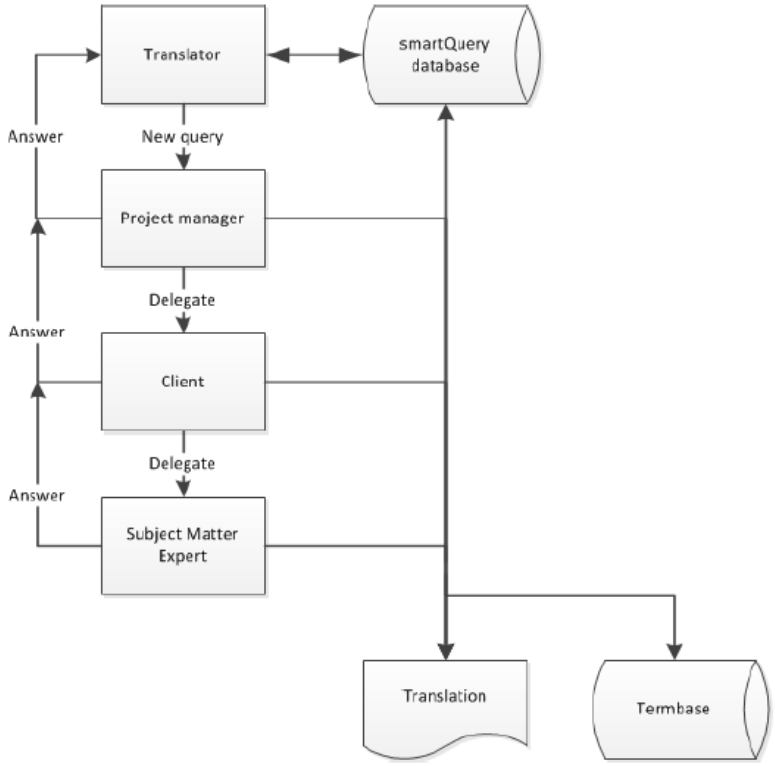

Figure 5.12: smartQuery - Workflow [smartQuery 2011: p4]

5.4.2 globalReview - From Quality Control to Quality Assurance

globalReview (gR) was developed by Kaleidoscope Ges.m.b.H. It is used for reviewing and approving translations performed with SDL Trados. As eurocom exclusively works with SDL Trados, the tool is perfectly suited to them. While version 1.0 was targeted at TQC, version 2.0 is now targeted at overall TQA, and future amendments will focus on further implementing TDP.

It is important to note that Review Management (RM) by third persons who are not translators but experts meant to work with the end product[34], is an additional service offered by eurocom to those customers who wish to have their translations checked by in-country experts in their local subsidiaries.

If a customer decides to opt for an additional review stage, the PM will control and manage the entire process. If the customer opts for reviewing as an additional step, a reviewing stage will be added to the workflow without having the end customer be noticed thereof. The latter will therefore not be bothered with having to file an additional request, or additionally commission the company with this task. Instead, the end translation submitted by the vendor will automatically be processed and transferred to the review-stage.

For a project to be reviewed the PM creates a new project in globalReview and the translation to be reviewed is uploaded by the PM as soon as it has successfully undergone the mandatory TQA-check. Then the respective reviewers are given notice thereof so that they can commence their work. Any of their remarks are first checked by the PM and made visible in the system to the vendors for a final check. If there are any comments on the reviewed document by the vendor in charge of translation, the respective reviewers have to read the translation through one more time[35]. Their final decisions following the second review are binding. Not only do the PMs finally assign the end product to the customer, but they also update the TMs and, if necessary, MultiTerm.
Reviewers are meant to check on the compliance of the translation with the company-specific terminology and its correctness with regard to technical contents and terms. However, their role does not extend to checking style or the source text (language).

As Künzli's study showed (even if it is a qualitative study and therefore limited in scope), revisers (their background and experience notwithstanding,) tend to neglect questions with regard to the necessity of any changes, if they only use the TT for review purposes (cf. [Künzli 2004: p115 et seq.] [Arthern 1983: p53 et seq.]).

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[34] As defined in DIN EN 15038

[35] (They will be given notice thereof by the PM)

Yet, at eurocom, comparative revisions is a mandatory step in the mandatory TQA process and vendors are not accepted on the vendor list if they have not signed a form that third-party revision is carried out by them (yet, there are some minor exceptions to this rule).
With regard to gR 1.0 (the version used before the quality enhancement process started at eurocom in January 2012), reviewers had to abide by the following rules:

Table 5.8: eurocom Review Guidelines

Did the translator stick to the company-specific terminology?
Have you made your changes consistently throughout the document?
Do any of your changes falsify the meaning of the source text?
Are all your corrections/annotations phrased clearly and unambiguously?
Reviewing is not copywriting! Only consider errors of style if relevant.
If you are unsure which category an error belongs to, take the “severest” one.
If you are unsure of the degree of severity, choose *serious*.

gR 2.0 comprises a much more substantive quality metric.

5.4.3 globalReview 1.0

As displayed in Figure 5.15, the reviewer ticks the green arrow between the Translation and the Review columns if unsatisfied with the solution proposed by the vendor. Consequently, the respective line in the review column will turn green and the translated text be indicated in the translation column appears. Clicking on the pencil, the reviewer may than modify the translated segment or propose another version.

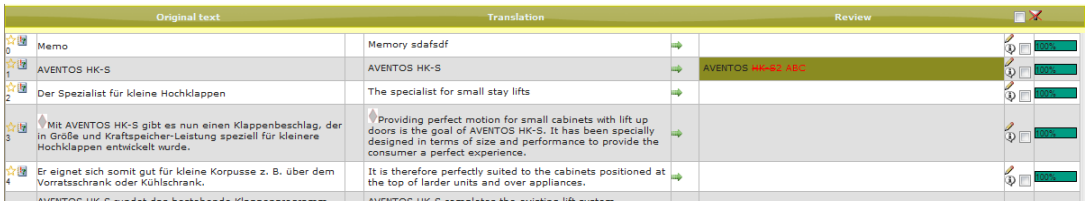

Figure 5.13: globalReview - Menu

The floppy disk saves the changes made. Furthermore, using the i-symbol or ticking the little white box, the reviewer can add comments or choose not to integrate their modifications in the TM.

Figure 5.14: globalReview - Right Column

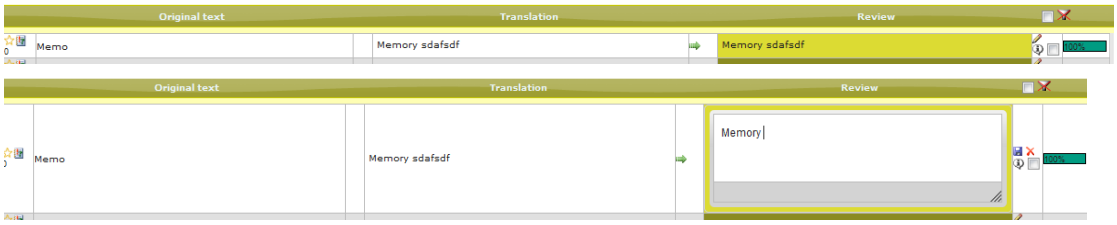

Figure 5.15: globalReview - Adding a New Translation

Finally, the tool box at the very bottom presents the following additional features:

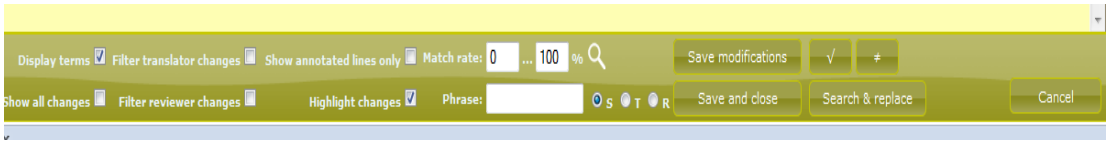

Figure 5.16: globalReview - Features

Once done with the review, the reviewer changes the settings to *review done* and contacts the PM, who subsequently shares the file(s) with the vendor. In the first review round, the vendor has the right to acknowledge any modifications made or to modify the translation again.

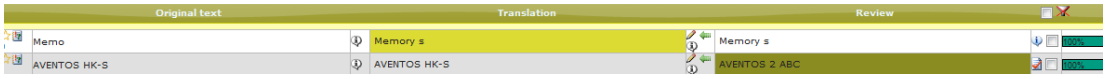

Figure 5.17: globalReview - Example of the Reviewing Process

Upon pushing the green arrow between the Review and the Translation column, the reviewed entry will be posted in the translation column and may be edited by the vendor by ticking the pencil.

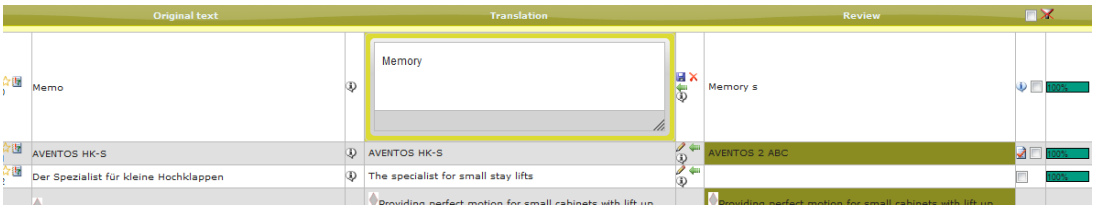

Figure 5.18: globalReview - Vendor Mask

The vendor may also acknowledges any of the modifications made 

If no alterations are made (neither acknowledgement nor editing), the modifications are deemed to have been acknowledged.

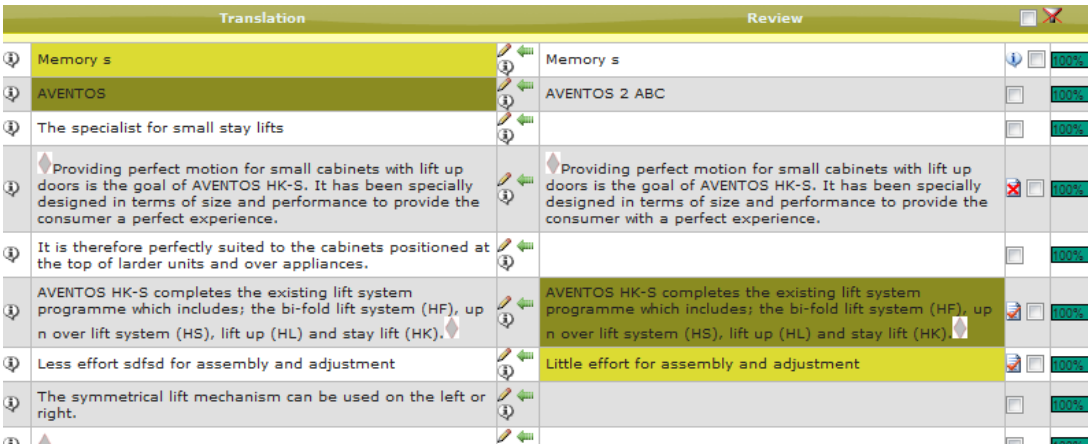

Figure 5.19: globalReview - Vendor Editing Possibilities

After having changed the status to retranslated, and contacted the PM, the PM assigns the project to the reviewer. It is then the reviewer's turn to reassess the translation.

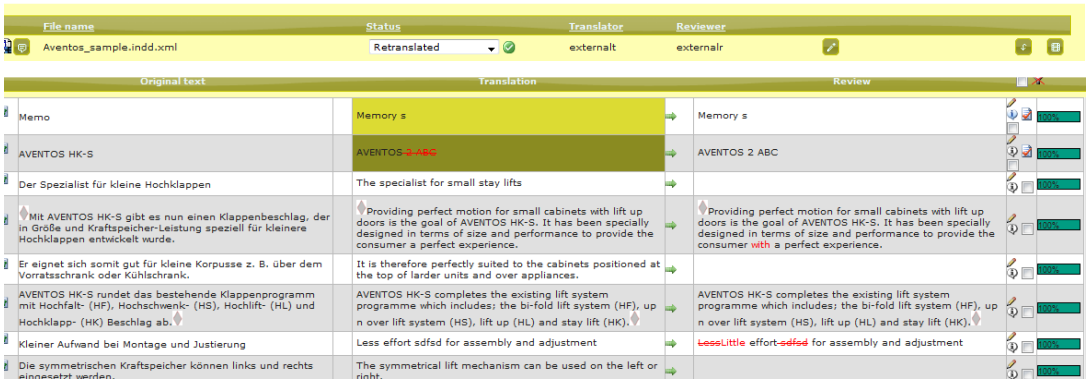

Figure 5.20: globalReview - 2nd Review by Reviewer

The reviewer's second judgement is binding. The PM forwards the end document to the end customer and carries out all post-TQA steps. gR is Trados-compatible so that any changes made in the review stage can easily be merged added to the TM and multi term.

5.4.4 globalReview 2.0

globalReview 2.0 contains new features deemed vital for TQA. Most importantly, the quality metric developed by eurocom (cf. Chapter 5.1) was integrated into globalReview. While version 1.0 only allowed for comments on the translation, the reviewer must categorise errors when modifying any translated segments in gR 2.0. This is done by clicking on the respective symbols in the right hand corner. After completion of the project, the PM can also check if any error categories were differently assigned by the translator and the reviewer (for instance, the reviewer marks it as a meaning error, while the translator marks it as a stylistic change) and reconcile them in order to produce an objective result. Finally, a numerical value is automatically calculated on the basis of the categorisations presented in the previous chapters.

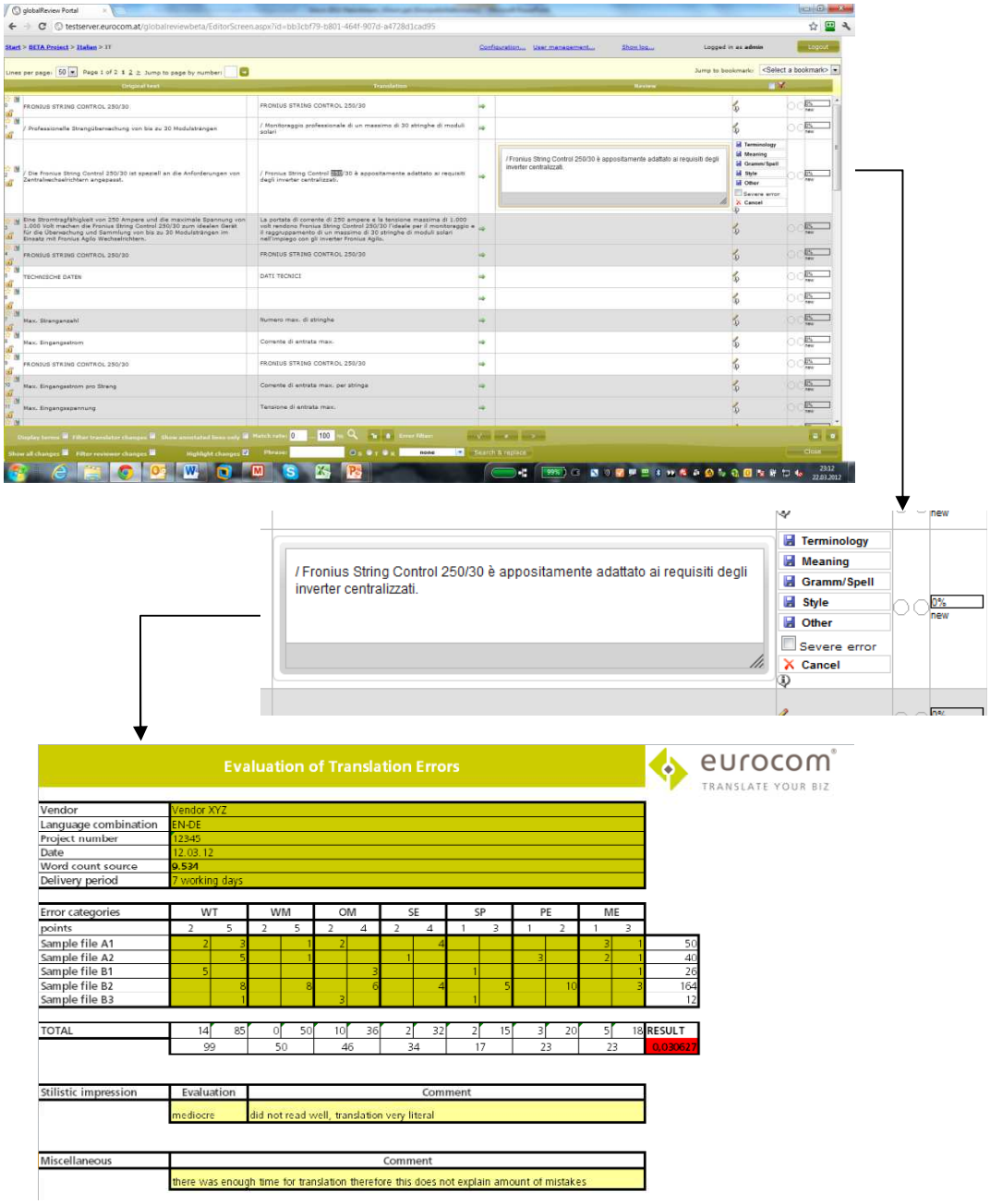

Figure 5.21: Data Fed into TQA Matrix and VM Tool

Subsequently, the PM can download a TQA metric (it is automatically filled out by globalReview). In the end, the metric is imported into LTC Worx, from where the VM Tool can then pull the information regarding quality. The merging process is currently being developed.

5.4.5 Error Categories

The following error catalogue was drawn up for globalReview 2.0:

5.4.5.1 Terminology

When talking about terminology and terminology standardisation, one should not forget that, as Zerfaß mentions, terminology extraction is a highly subjective process, for it depends on the degree of subject-knowledge. [Zerfaß 2006: p21 et seq.]

Even if standardised LSP partly or completely undermines the scope of action translators have, there is some translational freedom even when it comes to LSP texts. [Horn-Helf 1999: p102 et seq.] Naturally, the use of wrong terms in a translation may also be the result of mistakes in the TM.

By way of example, a term base might contain non-LSP terms which have different meanings. If the translator lacks knowledge or experience, or if they just rely on what is proposed by the term base, this will affect translation quality. Such a mistake can only be revealed in the review or the revision stage.

This category is targeted at wrong terms, inclusive of

- *Single words* (i.e. car),
- *Multi-word phrases, if used as a single, lexical constituent* (i.e. powertrain control module)
- *Abbreviations* (i.e. vol., cm),
- *Acronyms* (GPS),
- *Numbers or numerals* (4 and 4,17 respectively),
- *Proper names*, (*inter alia* trade names, brand names, registered trademarks, place names, and personal names) (i.e. European Union)

Table 5.9: Terminology Errors

Error Type	Example: Source Text	Translation	Severity
Wrong Term: *If a target language term*			Serious

is not in conformity with a customer term glossary			
Incorrect translation: *A target language term is in clear conflict with de facto standard translation(s) of the source language term in the respective field*	Field: Automotive Industry English: *Parking Brake*	German: *Parkbremse* instead of *Handbremse*	Serious
Inconsistent use: *A target language term is inconsistent with other translations of the source language term in the same document or type of document (unless the context for the source language term justifies the use of a different target language term)*[36]	Field: Automotive Industry English: *Accelerator*	French: Using both *pédale de gaz* and *accélerateur* interchangeably	to be determined
Denotes a concept in the target language that is clearly and significantly different from the concept denoted by the source language term	Field: Electrical Engineering German: *Schaltplan*	English: *Circuit plan* instead of *circuit diagram*	Serious
Untranslatables			Serious

5.4.5.2 Grammar

This category comprises punctuation, apostrophes, quotes, measurements, syntax, spelling, typographical, and grammatical errors.

[36] e.g. due to ambiguity of the source language term

Punctuation

Punctuation means any kind of punctuation error with regard to . , - ; “ ” etc., concerning words and numbers and numerals:

Table 5.10: Grammatical Errors 1

Error Type	Example: Source Text	Translation	Severity
Multiple spacing	English: *Tiresome screwing is not required.*	German: *Das_lästige Verschrauben entfällt.*	Minor
Unintentional spaces at the beginning/end of a segment	English: *[...] becomes too hot. In this case, put [...]*	German: *[...] zu heiß wird.Stellen Sie in diesem Fall [...]*	Minor
Punctuation at the end of segment	English: *Screws* *Screw nuts* *Spouts*	German: *Schrauben* *Schraubenmuttern;* *Tüllen*	Minor
Double punctuation	English: *Tiresome screwing is not required. Instead, [...]*	German: *Das lästige Verschrauben entfällt.. Stattdessen […]*	Minor
Spaces around special signs	3/4	3 / 4	Minor
Spaces around punctuation	English: *Instruction Sheet:*	German: *Bedienungsanleitung :*	Minor

Apostrophes and Quotes

Table 5.11: Grammatical Errors 2

Error Type	Example: Source Text	Translation	Severity
Apostrophe - Wrong use	English: *eurocom’s*	German: *eurocom’s* instead of *eurocoms or [...] von eurocom*	Minor

Apostrophe - Wrong sign	English: *eurocom`s* instead of *eurocom's*	Minor
Quotes		Minor

Measurements

Table 5.12: Grammatical Errors 3

Error Type	Example: Source Text	Translation	Severity
Temperature and angular degree signs			Minor
Space before measurement units		German: *90 °* instead of *90°*	Minor

Syntax

Table 5.13: Grammatical Errors 4

Error Type	Example: Source Text	Translation	Severity
A source term is assigned the wrong part of speech in its target language counterpart.	English: *The throttle valve connects to the accelerator pedal*	French: *Le papillon des gaz connecte à la pédale* instead of *Le papillon des gaz se connecte à la pédale*	Minor
The target text contains an incorrect phrase structure, e.g., a relative clause when a verb phrase is needed.			Minor
The target language words are correct, but in the wrong linear order according to the syntactic rules of the target language.	English phrase: *This ship was built in Germany*	German: *Dieses Schiff wurde gebaut in Deutschland* instead of *Dieses Schiff wurde in Deutschland gebaut*	to be determined

Spelling

Table 5.14: Grammatical Errors 5

Error Type	Example: Source Text	Translation	Severity
Violation with spelling in customer glossary (based on the assumption that the customer glossary is correct)			
Violation of accepted spelling norms in the target language	English: *Screw*	Portuguese: *atarrachar* instead of *atarraxar*	Minor
The use of an incorrect or inappropriate writing system	This refers to languages with different writing systems such as Japanese		to be determined
Typos	English: *Screw*	German: *Schruabe*	Minor

Other Grammatical Errors

Table 5.15: Grammatical Errors 6

Error Type	Example: Source Text	Translation	Severity
Incorrect Morphology: *Incorrect use of the morphological form, e.g., case, gender, number, tense, prefix, suffix, infix, or any other inflection in the target text*	English: *The vehicle is not supported* French: *Text messages were not sent*	German: *Gewählte Fahrzeug wird nicht unterstützt* instead of *Das gewählte Fahrzeug wird nicht unterstützt* French: *Les messages textes n'ont pas été envoyés* instead of *Les messages texte n'ont pas été envoyés*	to be determined
Disagreement in any form	German:	English:	to be determined

of inflection between two or more (!) target language words	*Der Motor läuft*	*The motor are running* instead of *the motor is running*

5.4.5.3 Wrong Meaning

This section comprises numbers and ranges, omissions, additions and other meaning errors.

Numbers and Ranges

Table 5.16: Wrong Meaning Errors 1

Error Type	Example: Source Text	Translation	Severity
Inconsistent numbers	English: *[...] implemented as of March 1981*	German : *[…] bis März 1918 umgesetzt*	Serious
Number formatting	German: *2,34*	English: *2,34* instead of *2.34*	Serious
Number sign			Serious
Range			Serious

Omissions/Additions

Table 5.17: Wrong Meaning Errors 2

Error Type	Example: Source Text	Translation	Weight
Partially translated segments, including a missing term/sentence/paragraph/larger block of text in the target text	English: *Read off instruments* English: *Don't twist or bend the electrode portions of the belt excessively*	German: *Lies die Geräte* (the prefix *ab* is missing) German: *Die Elektrodenteile des Gurtes dürfen nicht überdreht oder überdehnt werden*	Serious

Target identical to source			Serious
Inconsistent number of sentences in source and in target			Serious
Empty segments			Serious
A missing graphic, if (!) it contains any text in the source text	English Instruction Sheet with illustrations: *Step 3: Tighten the tripod stem screw in order to fix the auxiliary tribrach in position*	German Instruction Sheet with illustrations: *Schritt 4:*	Serious
Any addition to the source text, if deemed unnecessary/ inappropriate/wrong			to be determined

Note that the category *omission* does not imply that the source and target language words must be in a 1:1 correspondence!

Further Meaning Errors

Table 5.18: Wrong Meaning Errors 3

Error Type	Example: Source Text	Example: translation	Severity
Wrong understanding of (a part of the) source text Note: this does not apply to wrong translations of single terms, since this is to be categorised as wrong terminology	English Instruction Sheet concerning a Computer Game: *You will get to the next round, if you hit the knight with the umbrella on his head*	German: *Die nächste Runde ist erreicht, sobald Sie den Ritter mit dem Schirm auf seinem Kopf schlagen.* Even if the English sentence is formulated in a rather ambiguous way, it should have rather meant: *Die nächste Runde ist*	Serious

		erreicht, sobald Sie mit dem Schirm den Ritter am Kopf treffen. Note: At best, the translator out to have got back to the customer on this, before translating the sentence	
Lacking clarity of meaning in target text	English Instruction Sheet: *If you see the girl by using the telescope,...*	German: *Wenn Sie das Mädchen MIT dem Teleskop sehen*	Serious

5.4.5.4 Style

This category deals with register, the correct use of voices, tone and other questions of style.

Table 5.19: Style Errors

Error Type	Example: Source Text	Translation	Severity
Inaccurate use of active/passive voice	German: *Bitte Türe geschlossen halten!*	English: *Door to be kept close, please!* instead of *Keep door closed*	Minor
Idiomacy/Wrong register	*as to the use of typical and customary terminology for the pertinent subject matter field*		Minor
Equivalency in style and level of speech between source text language and target text language			Minor

Other

This category comprises linguistic errors related to the target language text which does not fall into any of the other categories such as *inter alia*:

5.4.5.5 Miscellaneous

Table 5.20: Miscellaneous Errors 1

Error Types	Example: Source Text	Translation	Severity
Unexpected characters			Minor or do not count
Initial capital letters	German: *Milch, Mehl,[…]*	English: *Milk, Flour, [...]*	Minor or do not count
Uppercase character after lowercase character		English: *Please, bEnd [...]*	Minor or do not count
Bracket matching			Minor or do not count

Tags

Table 5.21: Miscellaneous Errors 2

Error Types	Example: Source Text	Translation	Severity
Inconsistent tags in source and target			do not count
Spaces around tags			do not count
Entities			do not count

5.5 Verifika

At eurocom, PMs use Verifika, a trademark of Palex Ltd. (registration pending), for quality control.

By means of this software, location and formal error resolution is possible in bilingual translation files. Included in a final report, all detected errors can be corrected. External software (such as TagEditor) is not needed. Verifika also features an internal editor (reviews) and auto-correction. It is noteworthy to mention that the software is still being further developed, [Verifika 2011]

Verifika supports SDL Trados® TRADOStag Documents (.ttx), SDL XLIFF (.sdlxliff), MemoQ XLIFF (.xlf). [Verifika 2011]

At eurocom, the following settings are used in Verifika:

Common settings

Table 5.22: Verifika - Common Settings at eurocom

Omissions	Untrans-latables	Punctuation and Spacing	Quotes and Apos-trophes	Measure-ments	Tags	Numbers and Ranges	Miscel-laneous
Target identical to source[37]	Missing, wrongly spelled manu-ally defined untrans-latable words[38]	Multiple Spacing	Quotation marks	Tempera-ture and angular degree signs	Incon-sistent tags in source and target	Inconsistent numbers (skip imperial measure-ments in parantheses, skip Fahren-heit degrees in paran-thesis)	Unexpec-ted characters
Partially translated segments[39]		Punctuation at the end of segment		Space before units and thermal degree signs required	Entities	Space before and after range symbols and number signs required	Initial capita-lisation

[37] Segments where the target text is exactly the same as the source text. It ignores segments that consist only of untranslatables

[38] Segments where untranslatable words such as *Windows*, *Macintosh* etc. are missing. Additionally, it will detect segments with spelling errors occasionally introduced into such words, e.g. *Widows* instead of *Windows*

[39] Segments where parts of the source text are found in the target text

Empty segments[40]	Spaces around punctuation	Uppercase characters after lowercase ones
	Spaces around special signs	Bracket matching
	Unintentional spaces at the beginning/end of a segment	
	Double punctuation	

The following extract is an example of a Verifika report on common errors:

Table 5.23: Verifika - Report on Common Errors

	Language	**English (GB)**			
Error #	**File**	**Error**	**Position**	**Source**	**Target**
1	d04954.mif.sdlxliff	Different capitalization at the beginning of source and target	56	Dieser gewährleistet einen einwandfreien Korrosionsschutz für mindestens 24 Monate […]..	thus guaranteeing proper protection against corrosion damage for at least 24 months.[...].
2	d04954.mif.sdlxliff	Different capitalization at the beginning of source and target	63	Dieser dient als Korrosions- und Oxidationsschutz für den Motor.	as it protects the engine from corrosion and oxidation.

[40] Empty segments in files: A segment is empty if it does not contain any characters. A segment that consists of a single space is not empty.

3	d04954.mif.sdlxliff	Different capitalization at the beginning of source and target	124	y-Achse muss normal (rechtwinkelig) zur Flugzeuglängsachse stehen.	The y-axis must be perpendicular to the longitudinal axis of the aircraft.
4	d04954.mif.sdlxliff	Different capitalization at the beginning of source and target	246	y-Achse muss normal (rechtwinkelig) zur Flugzeuglängsachse stehen.	The y-axis must be perpendicular to the longitudinal axis of the aircraft.
5	d04954.mif.sdlxliff	Inconsistent numbers in source and target segments	98	Insgesamt sind 8 Befestigungspunkte (4x am Motor und 4x am Motorträger) vorgesehen.	Eight attachment points are provided (4 on the engine and 4 on the engine suspension frame).

[...]

Consistency Errors

Table 5.24: Verifika - Consistency Settings at eurocom

Target inconsistency	Source inconsistency	Treat all kinds of spaces equally	Check also ignoring case	Check also ignoring tags

The following extract is an example of a Verifika report on common errors:

Table 5.25: Verifika - Report on Consistency Errors

Source	Target	File (position)
Dies muss auch unter „<cf>Hot day condition</cf>“ gewährleistet sein!	This must also apply to “<cf>hot day conditions</cf>”.	d04960.mif.sdlxliff (228)
<cf>Dies muss auch unter „</cf><cf>Hot day condition</cf><cf>“ gewährleistet sein!</cf>	<cf>This must also apply to “</cf><cf>hot day conditions</cf><cf>”.</cf>	d04960.mif.sdlxliff (356)
Dies muss auch unter „Hot day condition“ gewährleistet sein!	This must also apply to “hot day conditions”.	d04963.mif.sdlxliff (356)

Termcheck & Spelling

Work on integrating term-check and spelling functions is currently in progress.

5.5.1 Verifika Upgraded

As already mentioned, a holistic TQA approach requires checks on all levels. If vendor quality is measured, the different results must be merged somehow. Yet, this is not the only challenge, as before the results can be merged, they must be derived.

However, the Verifika report cannot be viewed as a full error report, since the parameters are so fuzzy that not all displayed errors really are errors. Consequently, the following method was decided upon by eurocom:

1) The PM filters out all errors displayed in the error report (Excel file).
2) The amended Excel document is then forwarded to the vendor who comments on the errors and returns the file to the PM.
3) The PM then crosses out any sections which are not, in fact, errors according to the vendor's comments.
4) Now that the real errors have been filtered out, the error categories of the tool in use (here Verifika) are adjusted to the common quality metric (cf. Table 5.26)

Table 5.26: Verifika - Categories according to the New Quality Metric

Verifika	eurocom Category	Gravity
Omissions Empty segments Target identical to source Partially translated segments Inconsistent number of sentences in source and in target	Wrong meaning	Serious
Untranslatables	Terminology	Serious
Punctuation and Spacing Multiple spacing Punctuation at the end of segment Double punctuation Spaces around punctuation	Grammar/Spelling	Minor

Spaces around special signs Unintentional spaces at the beginning/end of a segment		
Quotes and Apostrophes Apostrophe Quotation marks	Grammar/Spelling	Minor
Measurement Temperature and angular degree signs Space before measurement units	Grammar/Spelling	Minor
Tags Inconsistent tags in source and target Spaces around tags Entities	Other	do not count?
Numbers and Ranges Inconsistent numbers Number formatting Number sign Range	Wrong meaning	Serious
Miscellaneous Unexpected characters Initial capitalization Uppercase character after lowercase Bracket matching	Other	Minor or do not count?
Consistency Tab Target Inconsistency Source Inconsistency	Wrong meaning	Serious

The errors are automatically categorised by running an excel macro (done by the PM).

Term-check and Spell-check

As soon as a term-check and spell-check will have been integrated into Verifika, the PM will carry out nearly all processing steps via Verifika (except for the grammar check!!), subsequently forward the amended excel file to the vendor and edit the returned file in accordance with the vendor's comments. Once again, an excel macro will categorise the remaining errors.

Chapter 6

Forecast

The empirical study at eurocom is but one approach towards TDP. Yet it is one out of few that exist at all. eurocom is currently further developing its KPIs and participates in the further development of DIN EN 15038. In this regard, it is its aim to also include soft data in their calculations and add them to the KPIs obtained using Verifika and global Review. As the soft data collection process is in progress, it can only be roughly outlined here. In a nutshell, the PM must fill in a TQA form after completion of a project. It pops up when they close a project via LTC Worx. The popup features a survey, which is to be targeted at the

- Quality of the cooperation,
- Flexibility,
- Innovation,
- Questions on whether the checklist was filled in properly?,
- Queries (were questions put forward reasonable?),
- Deadlines (taking account of the number of words to be translated)

The answer categories will comprise the options *very good*, *good*, *ok*, and *bad*. Naturally it will prove difficult to merge not only the results obtained in the additional revision phase with the ones obtained in the review phase. Yet, only so may valid and tangible results be produced and translation performance as well as translation output be

measured and monitored. Therefore, eurocom is currently developing a tool to merge this data and integrate the results in its VM platform. As a result, vendors will continuously be ranked objectively, steadily, and in conformity with their performance in the future. Results can also be used in the case of customer complaints.

Even if the tools used in the translation industry vary widely, this ought not to affect translation quality and vendor performance. The fact that there is more to translations than the literal transformation of words does not undermine the necessity to ensure transparency. eurocom's Quality Management strategy is an important contribution to this aim. Even if it was not possible to document the implementation process that is to follow, it would be worthwhile getting back to their efforts once they have thoroughly implemented their system. Commercial secrets and commercial innovative freedom notwithstanding, eurocom ought to share its experiences and best practices with the industry, and, in fact, it does so and sets high benchmarks. If the past was characterised by a lack of cooperation, the future aim ought to be a harmonisation of the industry to such a degree that holistic and tangible TQA is possible.

eurocom's example also showed how heterogeneous the use of technology is and how different it is to merge any of the obtained data automatically (and most MLV cannot benefit from cooperation as fruitful as the one between Kaleidoscope and eurocom). This is a highly sensitive issue and will remain difficult to address, as it might economically affect technology developers and providers and may, therefore, meet wide resistance. Yet, cooperation is vital so that, at least synergies can be harnessed and merging data becomes possible.

DIN EN 15038 provided customers with process transparency. MLVs need transparent information about vendor performance and clients want to be guaranteed good quality. Process-control without checks and quantitative criteria cannot meet all those goals.

Chapter 7

Conclusion

A selection of approaches, standards and initiatives for TQM targeted at the translation industry, notably at MLVs, showed that the translation industry has clearly cut its teeth on TQM. Yet, there is a long way to go. First, awareness of end customers for the certified quality of translations might create peer pressure in an industry where quality criteria have not yet been defined. Yet, these initiatives are mostly not available to them for free.
Furthermore, as for now, normative and descriptive models on TQM prevail. Their scope is, difficult to assess, since vital questions such as *How?, To which degree?, At Which Cost?* have only been marginally addressed so far. As current initiatives and guidelines, mostly on the translation process, lack precise rules (and numerical targets) there is room for mistakes even when they have been implemented correctly.

Unfortunately, it is still widely believed that translation is too creative and complex an activity to be measured and, thus, that it is simply not possible to quantitatively measure translation quality. On the one hand, there is no methodological panacea that will be all-encompassing and allow for universally assessing, proving and maintaining top quality vendors and products in an industry as diverse as the translation industry. On the other hand, numerical goals and settings – if generally defined and individually adapted to the different sectors in the translation industry – can definitely contribute to quality enhancement and overall top quality end products, notably in LSP translation.

The assumption and imperative of a 0-error threshold simply is a utopian one, for *errare humanum est* and translation is too complex a process to be fully carried out by technology. The underlying paper proved that it is not only possible but vital to define KPIs and TDP models, and to use them in TQM when measuring and assessing translation quality. Only then can MLVs enhance transparency and quality, for only then will they have an overview of the quality of their products and their vendors. It will also enhance competition in the market, for, not the lowest bidder, but the best bidder in terms of price-quality ration will succeed in the long run.

In this regard, the translation industry ought to deal with human and technological fallibility and start to ask questions such as:

- How many may errors do or may vendors make and which ones?
- What risk/error threshold may be borne by the end customer?
- When is a vendor considered to be no longer economically viable for the MLV (poor quality costs underline the need for choosing the best bidder as a vendor and not lowest bidder; furthermore, a vendor who regularly works for the company and commits one really severe mistake vs. a vendor who regularly produces good work with a serious on minor mistakes)?,
- Where is the break-even point in TQM - error reduction vs. economic viability (for the vendor [price reduction due to the implementation of further stages], for the translation agency (profit margin) and for the end customer (end price))?

Now that attempts have been made to harmonise the translation workflow so as to guarantee best quality control in the translation industry, attention should be drawn to the result: the translation; Even if somehow disregarded by the translation industry for it was deemed sufficient to define the workflow steps (without tangibly and numerically defining the Hows) in order to get good results, quantitative units are, without doubt, the most objective units to measure quality at all. As for now, not only the highly normative nature of any existing quality initiatives in the field is somehow regrettable, but also the non-

existence of or only individual common, universal standards, in particular on translation quality and errors.[41]

It was this paper's aim to show that when outsourcing translation tasks, the implementation and control of a thorough workflow in accordance with the existing norms is not enough. Only if the translation output is controlled, quality can be guaranteed. As MLVs have numerous big customers, are often commissioned with big projects, and regularly work with the same vendors, the future challenge will lie in storing and reconciling any sort of gathered data, and in making it "sustainable". This can be achieved by TDP.

In fact, what is herein referred to as TDP could become part of a holistic Performance Measurement System (PMS) – even if not in the traditional monetary sense of performance measurement, as it is supposed to designate the *„Aufbau und Einsatz meist mehrerer quantifizierbarer Massgrössen verschiedenster Dimensionen"* [...], *„die zur Beurteilung der Effektivität und Effizienz der Leistung und Leistungspotentiale unterschiedlichster Objekte im Unternehmen (Organisationseinheiten unterschiedlichster Grösse, Mitarbeiter, Prozesse) herangezogen werden."*[42] [Gleich 1997]

Yet, there are some major obstacles in establishing such a holistic TQA-oriented TDP-model for TQM: As already mentioned, data tracking has neither been on the agenda, nor even thought of so far, since the translation industry simply never used any data warehouses such as other industrial branches do. Tools are not harmonised and produced by different service providers; be it CAT-tools, or workflow tools that are on the market.

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[41] Yet, admittedly, first the harmonisation of the workflow was necessary, since the translation market is an unregulated one and a defined workflow serves as a sort of TQA and transparency for customers.

[42] Translation by the author: *The development and application of quantifiable measurements of all kind [...], which may be used to assess effectiveness and efficiency in the performance and potential of divergent objects within companies (units of different sizes, employees, processes).*

So, even if single steps of quality control are measured, it is difficult to merge any obtained data.

Yet, the example of eurocom demonstrates one approach of how to, as to say, separate the wheat from the chaff at different stages in order to provide quality. Their model addressed vital questions of how to steadily measure overall performance by whisking the collected information together and feeding it into a vendor management tool. It will become particularly interesting and important for the industry to see eurocom find a way to merge the different data and process them in their VM tool, a process that is currently being developed by them. In this regard, it is highly appreciable that the Austrian Standards Institute has launched a committee charged with questions of further developing DIN EN 15038 and dealing with TDP. eurocom participates in this committee.

I firmly believe that in the future, TQM will go beyond TQC and come to include TQA. Further, it will become indispensable to use a metric on the basis of which all factors that influence the end result are measured. As this paper's evaluation of TQM showed, steady TQA concerns numerous areas: hard facts such as objectively measurable errors (TQA check by PMs, reviews), and soft and formal facts such as cooperation, deadlines, and queries, etc. This is illustrated in the following figure:

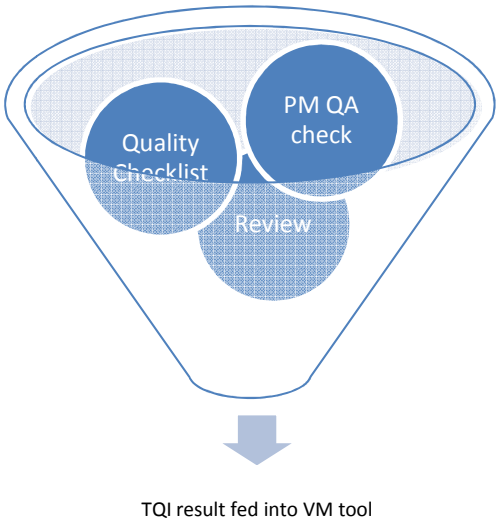

Figure 7.1: TQI Result fed into VM Tool

What is going to become even more interesting in the future is how to weigh the categories and how to merge the data (e.g. the soft facts). Another challenge lies in the determination of the impact the end result has on the vendor quality ranking. Unfortunately, eurocom's model has not been finalised yet, when this paper was written.

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MA-Studium Dolmetschen, Uni Wien (D-E-F: Terminologiearbeit zur Qualitätssteigerung i.d. mehrsprachigen Fachkommunikation im Denkmalschutz

Seit Jan. 2009:
MA-Studium Übersetzen, Uni Wien (D-F-E)

Okt. 2005-Feb.2012:
Dipl.stud. Politikwissenschaft (ausgezeichneter Erfolg)
Diplomarbeit: Quality Enhancement in the Tertiary Education Sector in the UAE

März 2007-Juni 2009:
Diplomstudium Spanisch (Prüfung 1.Abschnitt; C1-Niveau absolviert)

Okt. 2005-Jan. 2009:
BA-Studium Dolmetschen und Übersetzen

2005: Linz International School Auhof (LISA):
Matura, International Baccalaureate

Kenntnisse:

Sprachen:

Deutsch:	Muttersprache
Französisch:	fließend in Wort und Schrift
Englisch:	fließend in Wort und Schrift
Spanisch:	fließend in Wort und Schrift

EDV:

MS Office, SPSS; Imos Graphics, SDL Trados, Across

Ausbildungsbegleitende Tätigkeiten:

+ Dolmetschleistungen:

2011/10: Symposium für ein EBG organisiert vom Int. Deutschsprachigen Runden Tisch für ein Bedingungsloses Grundeinkommen
2011/05: Übungssetting im Rahmen des Studiums: UN-Conference against Transnational Organised Crime von 17.-19.5.2011 in Wien
2009/2010: einzelne Vorträge, die am ZTW Wien gehalten wurden (D-E-F)

Terminologiearbeit:

seit 2011: Asfinag
Mitarbeit am Projekt des ZTW

seit 2010: IFRS
http://ztwweb.trans.univie.ac.at/ifrs/
Mitarbeit am Projekt des ZTW

IFTAHU (www.iftahu.org):
Projekt am ZTW Wien zur Bewusstseinsschaffung und Förderung islamischer Kunst (E);

2009: Projektmitarbeit zur Erstellung des UN-WTO-Glossars

2002-2005: Betreuerin; evang. Jungschar Marchtrenk, OÖ

2002-2005: Blasorchester Holzhausen, OÖ (Schulungen, Konzerte, Wertungen)

2002, 2003, 2005: int. Austauschprogramme: Frankreich, Bangkok, Kapstadt

1997-2005: LMS Marchtrenk (Bronze- und Silberabzeichen/Querflöte)

Berufserfahrung:

Juni 2012 - …:

Außeruniversitäres Institut für Public Social Responsibility gemeinnützige Gesellschaft mbH

Bereichsleitung Wissenschaft, wissenschaftl. Referentin, Übersetzerin und Dolmetscherin

Fachgebiete:
+ Angewandte intern. Systemforschung im Bereich der Daseinsvorsorge,
+ Komparative Forschung im Bereich der Staats- und Verwaltungslehre,
+ Komparative Wohlfahrtsstaatsforschung,
+ Europäische Politik,
+ Politische Theorie,
+ Politische Ökonomie (NPM),
+ Qualitätssicherung
+ Übersetzungen& Dolmetschungen (D-E-F-SP)

Dezember 2010 - …:

Selbstständige Übersetzerin und Dolmetscherin

Juni 2009 - April 2010/April 2010 bis November 2011:

Mrs Gmbh, Wien TMP Gesmbh, Wien (Übernahme)

Linguistic Manager and Head of Customer Service, Projektmanager für das Projekt Kanada in Québec

Tätigkeitsprofil:
+ Dolmetschungen (D,F,E),
+ Übersetzungen (D,F,E),
+ Kundenredaktionsleitung,
+ Personalplanung (Assessment&Evaluation, Einstufungstests, etc)…
+ Linguistische, grafische und techn. Unterstützung der Produktion
+ ModeratorInnenschulungen& Coachings
+ Auslandskorrespondenz
+ Quality Management (MitarbeiterInnenschulungen, Reports, Vermittlung zwischen Anwalt, Behörden und dem Unternehmen; Prüfinstanz bei der korrekten Umsetzung sämtlicher Erfordernisse)

Behörden und dem Unternehmen; Prüfinstanz bei der korrekten Umsetzung sämtl. Erfordernisse)

Juli 2009-Aug. 2010:
ActiLingua, Wien
Lehrerin für DaF für Erwachsene

Tätigkeitsprofil:
Grammatik-, Konversations-, und Intensivkurse von Gruppen und Einzelpersonen (ab 16), A1-C1

Juli 2009-Aug. 2010:
ActiLingua, Wien
Kultur-Associate

Tätigkeitsprofil:
+ Führungen, Vorträge (Kunst, Kultur, Geschichte…)

Juli 2009-Aug. 2009: Praktikum Centropa: Übersetzerin

2007 :
La Péniche, Homps – Canal du Midi
Tätigkeitsprofil:
Service und Kundenbetreuung eines internationalen Publikums

2006:
Hôtel Excelsior – Paris;

Tätigkeitsprofil:
Rezeption, Service, Kundenbetreuung, Schulungsschwerpunkt: Organisation, Kundenbetreuung und Computer Skills

2005 :
La Promenade – Languedoc-Roussillon

Tätigkeitsprofil :
Service, Zimmerreinigung, Rezeption

2003 : *Royal Saint Mart* – Royat Chamalière

Tätigkeitsprofil:
Praktikum im Bereich Kundenbetreuung

2001-2010: *Hofstetter Hans Gmbh* – Linz

Tätigkeitsprofil:
Messen und Arena, Stadion, Service, Verkauf

Freizeit:

Natur, Spazieren gehen, Kochen, Musik, Literatur, Theater, Kultur,…