



# SIMPLIFIED TECHNICAL ENGLISH AS THE BASIS FOR YOUR GLOBAL DOCUMENTATION NEEDS

7 OCTOBER 2021



“Continuous improvement of an entire value stream or an individual process is to create more value with less waste.



静雯





A black and white photograph of a man with a beard, wearing large headphones and a backpack, juggling several balls on a city street. The background shows a blurred urban scene with buildings and pedestrians. The text is overlaid on the image in white.

Lower cost

Time-to-market

Decrease dependence on suppliers

**Your business requirements & environment**



# OVERVIEW

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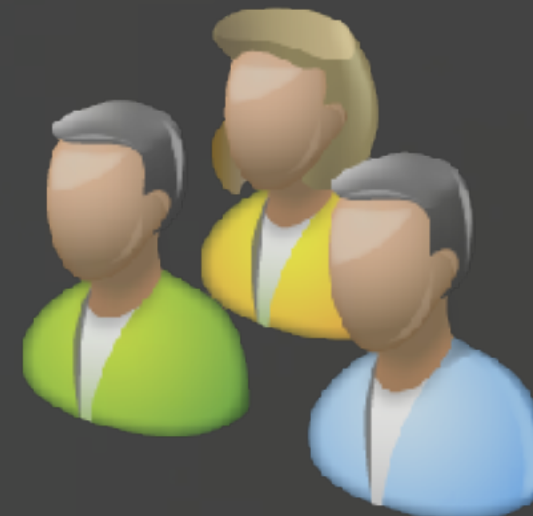
1. **Why Simplified English?**
2. What is Simplified English?
3. Industry case studies
4. STE for translation & localisation
5. Q&A.



# Problems with 'Standard' English



- Do a task.
- Undertake a task.
- Perform a task



- Carry out a task.
- Be responsible for a task.
- Oversee a task

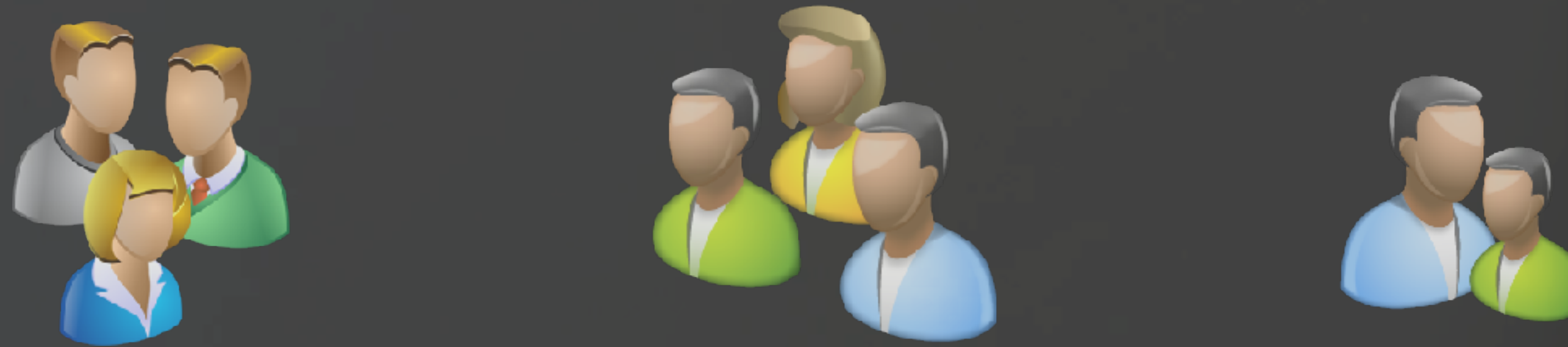


- Execute a task.
- Realise a task.





# Managing international authoring teams begins with your choice of words



Same rules, same words



Consistent user guides & manuals



Less rework & editing



One voice





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# Concise & precise writing

*“STE is an aerospace standard, or at least it started off that way. Given the success of STE, and its adaptability, it has been applied to various document types over time, and increasingly also in other (mainly technical) industries.” - Shumin CHEN, **Credible and Concise - Simplified Technical English**, TCLoc Master, 2017.*



# STE is cross-industry



## Automotive

- Patria
- Rheinmetall MAN Military Vehicles
- Sandvik
- SEAT
- Volkswagen
- FNSS Defense Systems



## Aviation

- Air Arabia
- Boeing
- Embraer
- Eurocopter
- FAA
- GMF AeroAsia
- Goodrich
- Lufthansa Systems
- Rolls-Royce



## Electronics

- ABB
- Creative
- Huawei
- Philips
- Rohde & Schwarz
- Samsung
- Telecommunications Technology Association of Korea



## IT & Security

- Check Point
- Cisco
- Microsoft
- Radisys
- Watchguard
- Gemalto



## Machinery

- Black & Decker
- Finn-Power
- HOMAG
- Shikoku Kakoki
- Tetra Pak



# What is STE?


**RULE: 1.1** Choose the words from:

- Approved words in the Dictionary (“use”)
- Words that qualify as Technical Names (“engine”)
- Words that qualify as Technical Verbs (“ream”)

balanced and rather complete set of words developed by a whole committee: linguists, engineers, operators, manufacturers, MROs.

The core vocabulary lets you write just about everything you need for technical documentation.

Client-specific terms      Guidelines on choosing company- or product-specific technical names and verbs will be provided.



Consistency  
Readability  
Translatability  
Quality

Ambiguities  
Translations costs



# What is STE?



NECESSARY

need (verb)

👍 The backing rings do not need to be replaced.

👎 IT IS NOT NECESSARY TO REPLACE THE BACKING RINGS.



WILL

want (verb)

👍 Identify the parts that you want to reinstall.

👎 IDENTIFY THE PARTS THAT YOU WILL INSTALL AGAIN.



# Tools for decluttering the 'Standard' English vocabulary





# Problems with 'Standard' English

Keyword	Part of speech	Translation/Meaning
<b>Notify</b>	v	Уведомить
Encrypted	adj	Шифрованное
<b>Determine</b>	v	Определять
Remove	v	Удалять
USB flash drive	n	USB-устройство флэш-памяти
Eject	v	Извлечь
<b>Unplug</b>	v	Отсоединить от сети питания
<b>Check</b>	v	Проверять
Missing	adj	Недостающий
<b>Complete</b>	adj	В полном составе
<b>Respond</b>	v	Отвечать
Failure	n	Ошибка
Occur	v	Случаться, происходить
<b>Persist</b>	v	Повторяться
Run	v	Выполнять, запускать
Account	n	Учетная запись
Privilege	n	Права, привилегии
Greater	adj	Больше
<b>Perform</b>	v	Производить (действие)
Less	adj	Меньше
Password	n	Пароль



## A closer look

Keyword	Part of speech	Translation/Meaning
Notify	v	Уведомить
Determine	v	Определять
Unplug	v	Отсоединить от сети питания
Check	v	Проверять
Complete	adj	В полном составе
Respond	v	Отвечать
Persist	v	Повторяться
Perform	v	Производить (действие)



# Applying sound STE principles

Keyword	Approved synonyms	Approved examples
<b>Notify (v)</b>	KNOW, TELL	IF..., LET THE CHIEF INSPECTOR KNOW
<b>Determine (v)</b>	FIND, GIVE, SELECT	
<b>Unplug (v)</b>	DISCONNECT, PLUG (N)	REMOVE THE PLUG FROM THE FUEL LINE.
<b>Check (v)</b>	CHECK (N)	DO A CHECK OF THE HYDRAULIC SYSTEM.
<b>Complete (adj)</b>	FULL, ALL, COMPLETE (V)	...THREE FULL CYCLES. ..ALL TEST RESULTS
<b>Respond (v)</b>	RESULT (N)	... DOES NOT GIVE A RESULT,..
<b>Persist (v)</b>	CONTINUE	IF THE FAULT MESSAGE CONTINUES, ..
<b>Perform (v)</b>	DO	DO THE LEAK TEST.





# OVERVIEW

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## General Description

Complex  
verb tense

The 14CM15 continuous miner is a high capacity machine designed for soft mineral applications. The machine is designed to be operated from a remote control station, but you can also initiate most machine functions using controls mounted on the machine.

Unapproved  
word

Unapproved  
word

Unapproved  
verb tense

Unapproved  
word

The cutter motors are mounted perpendicular to the center-line of the boom frame. Each cutter motor is protected by a torque limiting clutch. Each cutter motor connects to the gear-case gearing with an internal torque shaft.

Unapproved  
word



# General Description

The 14CM15 continuous miner is a high capacity machine designed for soft mineral applications. The machine is designed to be operated from a remote control station, but you can also initiate most machine functions using controls mounted on the machine.

The 14CM15 continuous miner is a high capacity machine used for soft mineral applications. Although the machine operates from a remote control station, you can also start most machine operations with the controls installed on the machine.

The cutter motors are mounted perpendicular to the center-line of the boom frame. Each cutter motor is protected by a torque limiting clutch. Each cutter motor connects to the gear-case gearing with an internal torque shaft.

The cutter motors are installed perpendicular to the center-line of the boom frame. Each cutter motor has a torque limiting clutch as protection. Each cutter motor connects to the gear-case gearing with an internal torque shaft.



## Lifting and Blocking

miners are shipped to the customer site either as a complete machine or in component sections, depending on customer preference, transportation weight restrictions, or size/weight restrictions at the mine site. When the machine arrives at its destination, it should be unloaded by experienced personnel.

Unapproved  
verb tense

Unapproved  
word

Complex  
verb tense

## Lifting and Blocking

miners are sent to the customer either as a completed machine or in component sections when the customer's requirements are different. When the machine gets to its destination, only experienced personnel can move it



Follow these general guidelines when lifting the machine:

- For a two-piece teardow between the cutter frame boom stops.

- For a two-piece teardow cylinder mounting pins, chains around these pins,

- Sling straps around the shear cylinders removed, to the bumper when lifting

- For multiple componer Blocking Diagrams in the

Obey these general guidelines when the machine is lifted:

- To remove the cutter boom, route the chain between the cutter frame and drums. Connect the chain to the cutter boom stops.

- To remove the shear cylinders, use straps around the lower shear cylinder mounting pins. and around the rear bumper. Do not use chains around the cylinder mounting pins.

- To remove more than two components, refer to the Lifting and Blocking Diagrams in the *Parts Manual*.

## Readability

## Readability

Grade 6

Good

Words: 76

Show More ▼

0 adverbs. Well done.

1 use of passive voice, meeting the goal of 2 or fewer.

0 phrases have simpler alternatives.

2 of 8 sentences are hard to read.

0 of 8 sentences are very hard to read.



# CASE STUDY REVIEW

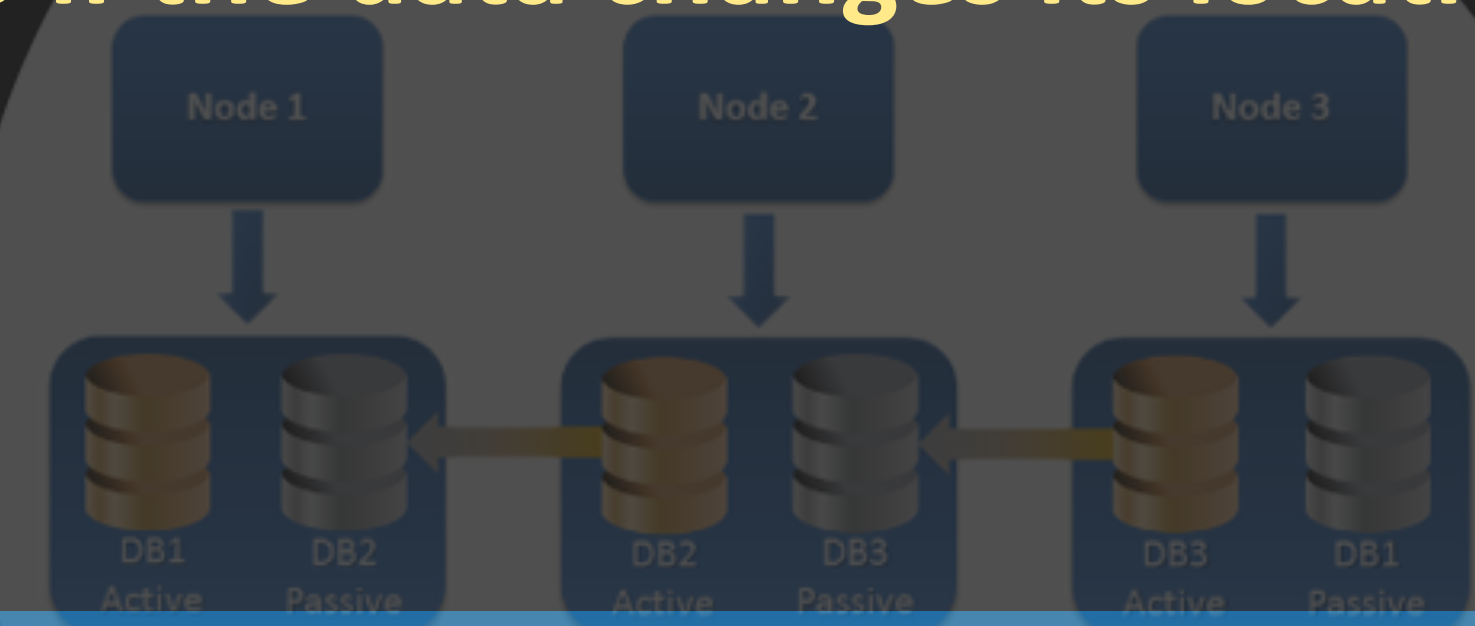
Backing up and recovering data of Exchange clusters

Original:

“**XXX Backup & Recovery 11 for Microsoft Exchange Server** provides protection for the clustered data **regardless of its placement within the cluster.**”

STE:

“**The software** gives protection for all clustered data, **also if the data changes its location in the cluster.**”





# CASE STUDY REVIEW

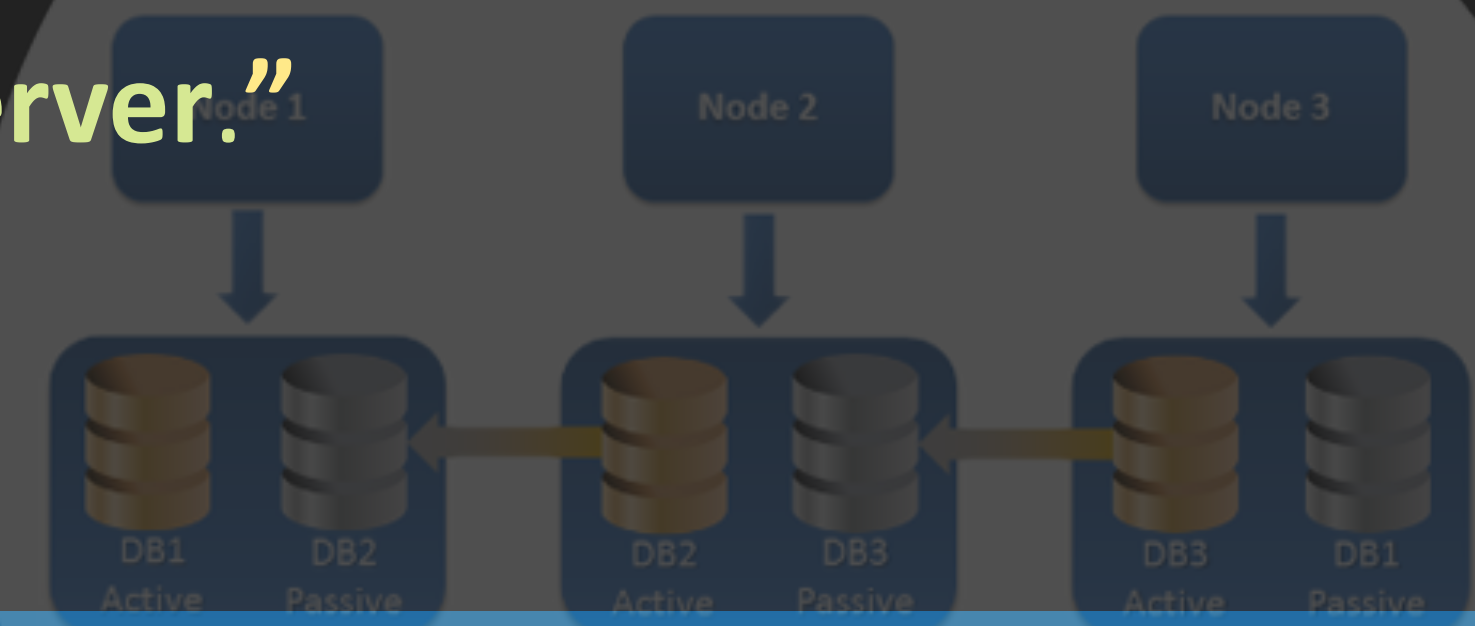
Backing up and recovering data of Exchange clusters

Original:

**“This means that even if the data being backed up changes its location within the cluster (for example, if mailbox role is moved to another server due to a switchover or a failover),”**

STE:

**“For example, if the mailbox role moves to a different server.”**





# CASE STUDY REVIEW

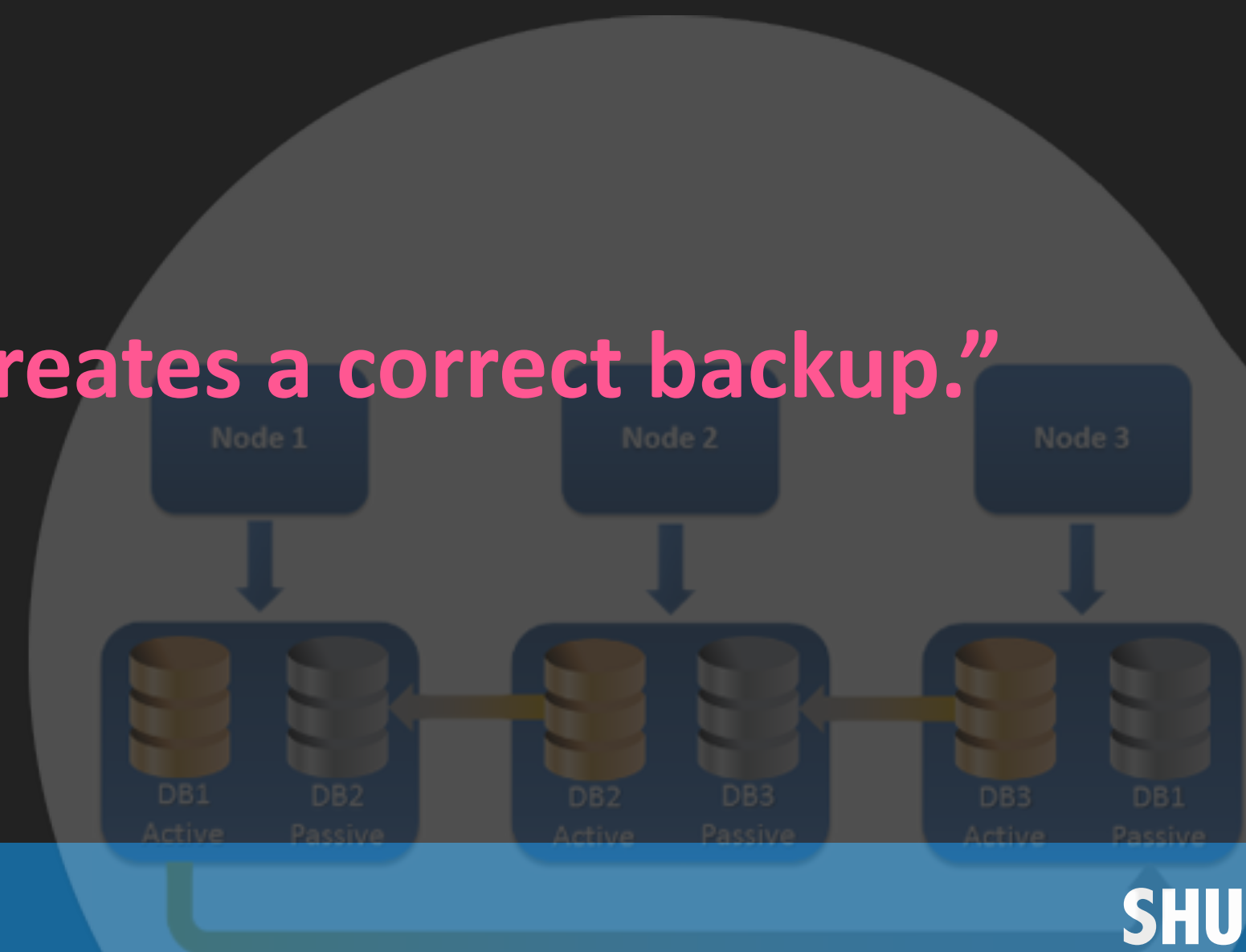
Backing up and recovering data of Exchange clusters

Original:

**“the software will track all relocations of this data and safely back it up.”**

STE:

**“The software records all relocations of this data and creates a correct backup.”**





# CASE STUDY REVIEW

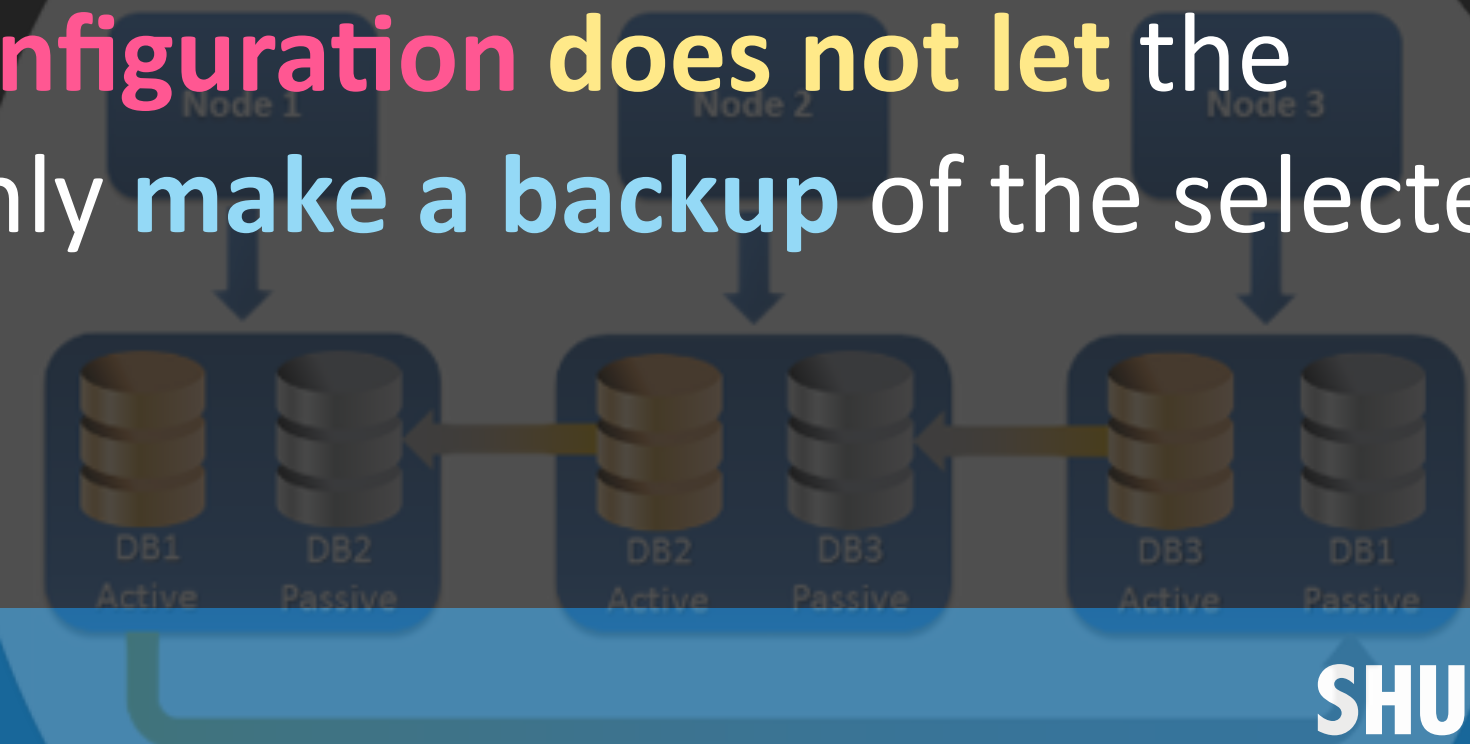
Backing up and recovering data of Exchange clusters

Original:

“Cluster-wide protection is useful **in the event** some of the cluster nodes go offline, **unless** the backed up data becomes **completely** unavailable, or **backup plan configuration explicitly prohibits** the protection to run on the remaining nodes (if you select **to back up** only the selected node, for example).”

STE:

“Cluster-wide protection is useful **when** some of the cluster nodes go offline and the backup data is available. Cluster-wide protection is not useful when the **configuration does not let** the protection operate on the other nodes. For example, if you only **make a backup** of the selected node.”





“The alarm system is to be function tested for ability to provide general alarm, toxic gas alarm, mustering alarm and PA messages throughout the installation. Functional visual alarms shall be available in high noise areas including main engine room, aux machinery room, pump room, cementing room and emergency generator room.

PASS: Alarm signals are able to alert personnel either audibly or visually in all areas of the rig. Sounders / horns are functional and lights are functional and unobstructed.”



*—Johnny Anon.*



“DO A TEST OF THE ALARM SYSTEM TO MAKE SURE THAT THE GENERAL ALARM, TOXIC ALARM, MUSTERING ALARM, AND PA MESSAGES OPERATE CORRECTLY.

THERE WILL BE VISUAL ALARMS AVAILABLE IN HIGH NOISE AREAS THAT INCLUDE:

MAIN ENGINE ROOM

AUX MACHINERY ROOM

PUMP ROOM

CEMENTING ROOM

EMERGENCY GENERATOR ROOM.

PASS: PERSONNEL CAN SEE AND HEAR ALARM SIGNALS ON THE RIG. HORNS AND LIGHTS OPERATE CORRECTLY AND ARE NOT BLOCKED.”



*–Simplified Technical English*



“DO A TEST OF THE ALARM SYSTEM TO MAKE SURE THAT THE GENERAL ALARM, TOXIC ALARM, MUSTERING ALARM, AND PA MESSAGES OPERATE CORRECTLY.

~~THERE WILL BE VISUAL ALARMS AVAILABLE IN HIGH NOISE AREAS THAT INCLUDE:~~

~~THE MAIN ENGINE ROOM~~

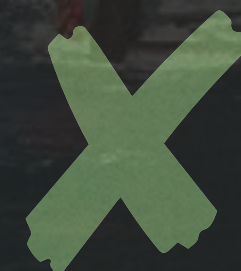
~~THE AUX MACHINERY ROOM~~

~~THE PUMP ROOM~~

~~THE CEMENTING ROOM~~

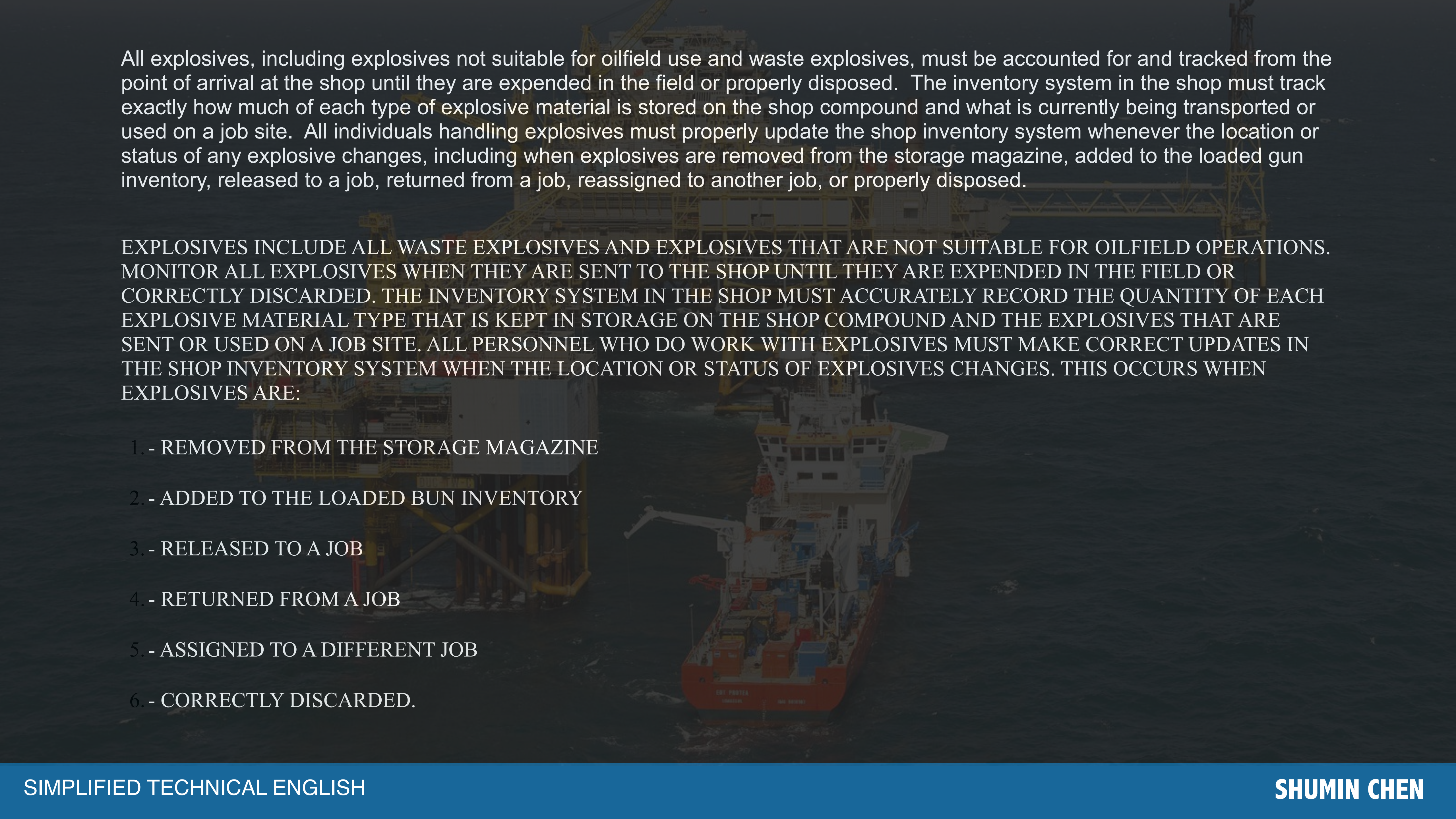
~~THE EMERGENCY GENERATOR ROOM.~~

PASS: PERSONNEL CAN SEE AND HEAR ALARM SIGNALS ON THE RIG. HORNS AND LIGHTS OPERATE CORRECTLY AND ARE NOT BLOCKED.”



*–Simplified Technical English with SME Input*



The background of the slide features a dark, semi-transparent image of an offshore oil rig and a supply ship. The rig is a complex structure with yellow and grey components, situated in the upper left. The supply ship, a red-hulled vessel with a white superstructure, is positioned in the lower right, moving towards the rig. The overall scene is set against a dark blue sea and sky.

All explosives, including explosives not suitable for oilfield use and waste explosives, must be accounted for and tracked from the point of arrival at the shop until they are expended in the field or properly disposed. The inventory system in the shop must track exactly how much of each type of explosive material is stored on the shop compound and what is currently being transported or used on a job site. All individuals handling explosives must properly update the shop inventory system whenever the location or status of any explosive changes, including when explosives are removed from the storage magazine, added to the loaded gun inventory, released to a job, returned from a job, reassigned to another job, or properly disposed.

EXPLOSIVES INCLUDE ALL WASTE EXPLOSIVES AND EXPLOSIVES THAT ARE NOT SUITABLE FOR OILFIELD OPERATIONS. MONITOR ALL EXPLOSIVES WHEN THEY ARE SENT TO THE SHOP UNTIL THEY ARE EXPENDED IN THE FIELD OR CORRECTLY DISCARDED. THE INVENTORY SYSTEM IN THE SHOP MUST ACCURATELY RECORD THE QUANTITY OF EACH EXPLOSIVE MATERIAL TYPE THAT IS KEPT IN STORAGE ON THE SHOP COMPOUND AND THE EXPLOSIVES THAT ARE SENT OR USED ON A JOB SITE. ALL PERSONNEL WHO DO WORK WITH EXPLOSIVES MUST MAKE CORRECT UPDATES IN THE SHOP INVENTORY SYSTEM WHEN THE LOCATION OR STATUS OF EXPLOSIVES CHANGES. THIS OCCURS WHEN EXPLOSIVES ARE:

1. - REMOVED FROM THE STORAGE MAGAZINE
2. - ADDED TO THE LOADED BUN INVENTORY
3. - RELEASED TO A JOB
4. - RETURNED FROM A JOB
5. - ASSIGNED TO A DIFFERENT JOB
6. - CORRECTLY DISCARDED.



## Readability

Grade 5

Good

Words: 132

Show More ▼

0 adverbs. Well done.

3 uses of passive voice, meeting the goal of 3 or fewer.

1 phrase has a simpler alternative.

1 of 17 sentences is hard to read.

3 of 17 sentences are very hard to read.

All explosives, including and waste explosives, must be properly disposed at the point of arrival at the shop compound and used on a job site. The inventory system must accurately record the quantity of each explosive material type that is kept in storage on the shop compound and the explosives that are sent or used on a job site. All personnel who do work with explosives must make correct updates in the shop inventory system when the location or status of explosives changes. This occurs when explosives are:

EXPLOSIVES INCLUDE ALL WASTE EXPLOSIVES AND EXPLOSIVES THAT ARE NOT SUITABLE FOR OILFIELD OPERATIONS. MONITOR ALL EXPLOSIVES WHEN THEY ARE SENT TO THE SHOP UNTIL THEY ARE EXPENDED IN THE FIELD OR CORRECTLY DISCARDED. THE INVENTORY SYSTEM IN THE SHOP MUST ACCURATELY RECORD THE QUANTITY OF EACH EXPLOSIVE MATERIAL TYPE THAT IS KEPT IN STORAGE ON THE SHOP COMPOUND AND THE EXPLOSIVES THAT ARE SENT OR USED ON A JOB SITE. ALL PERSONNEL WHO DO WORK WITH EXPLOSIVES MUST MAKE CORRECT UPDATES IN THE SHOP INVENTORY SYSTEM WHEN THE LOCATION OR STATUS OF EXPLOSIVES CHANGES. THIS OCCURS WHEN EXPLOSIVES ARE:

1. - REMOVED FROM THE STORAGE MAGAZINE
2. - ADDED TO THE LOADED BUN INVENTORY
3. - RELEASED TO A JOB





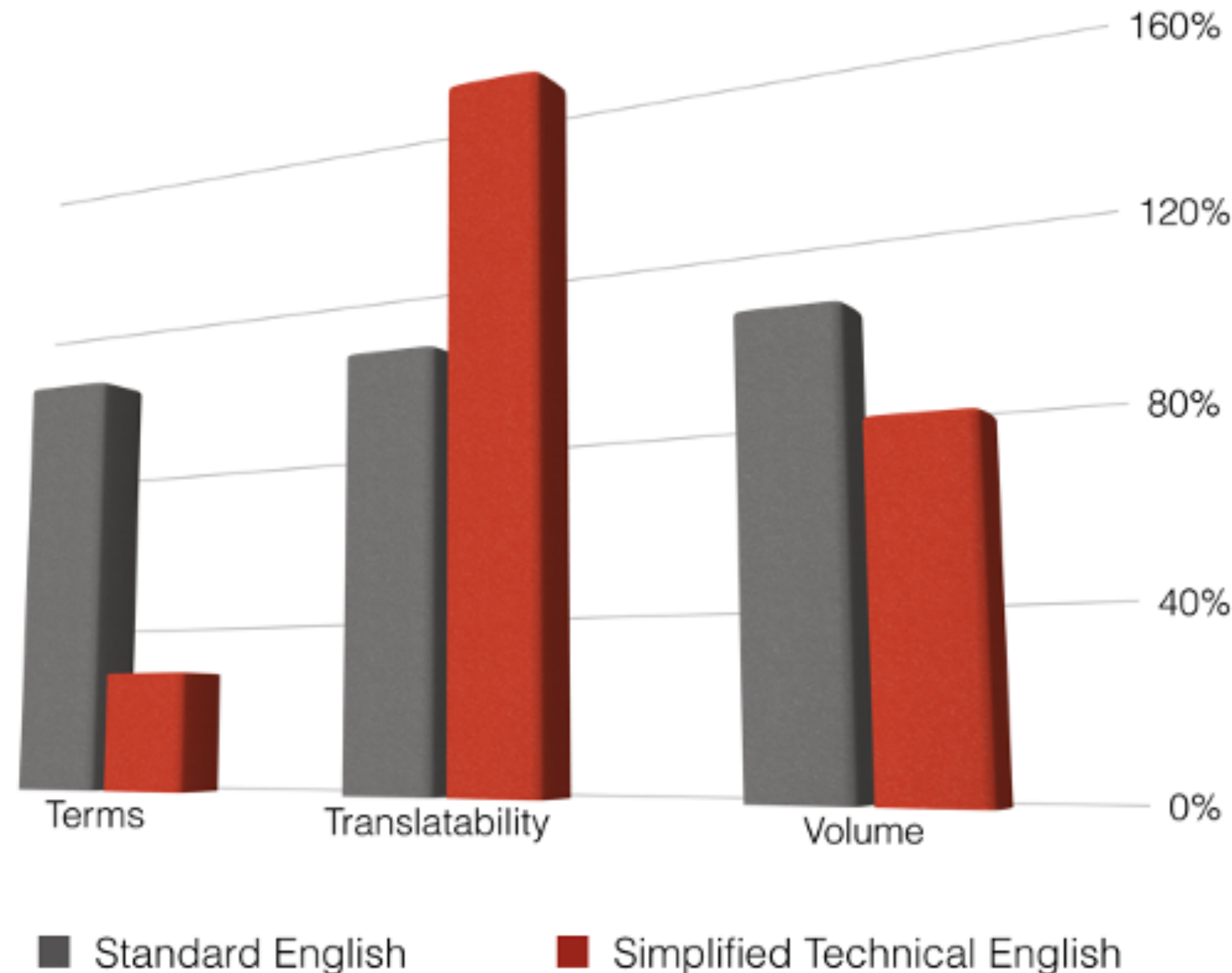
# OVERVIEW

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1. Why Simplified English?
2. What is Simplified English?
3. Industry case studies
- 4. STE for translation & localisation**
5. Q&A.



# STE for translation and localisation

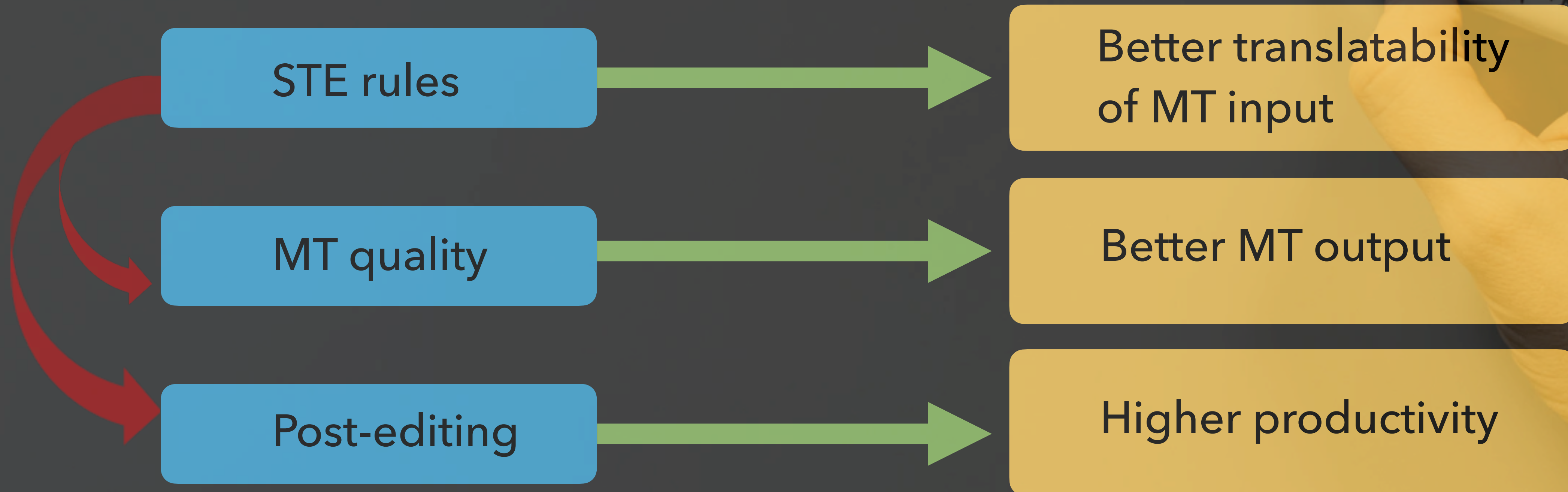


- As the text volume is typically reduced by at least 20%.
- The remaining text becomes more repetitive, as the use of STE normally results in 30 to 40% less translation cost.
- STE will reduce the number of unique terms and improve translation quality and consistency.

Figure 1: This graph shows the typical results of rewriting Standard English into Simplified Technical English.



# Creating translation-friendly text: a three-way approach



Adapted from: Aikawa, T. (2007). Impact of controlled language on translation quality and post-editing in a statistical machine translation environment  
Retrieved: 6 May 2018



# Steps in Applying Natural Language Processing to Aircraft Maintenance

## Words over numbers

1.

*"..a great deal of information important to predictions and smarter troubleshooting is not in the form of numbers; it is in words—in manuals." - H.Canaday, [Natural Language Processing For Aircraft Maintenance Explained](#), InsideMRO, Jan 2019.*

4.

Deploy the models to:



Perform chatbot like interactions



Provide guidance, recommendation and search functions



Generate summarized reports





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“ Compliance with prescribed writing rules paired with a limited vocabulary is like the proverbial pill to

However, there is only so much as technical communication involves some tugging and maneuvering; the kite is going nowhere

Shumin CHEN, Head of Technical English training

Keep in touch!  
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