



Len Manufacturing
THE CULTURE OF KAIZEN

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Sammy Obara

LEI Faculty Member

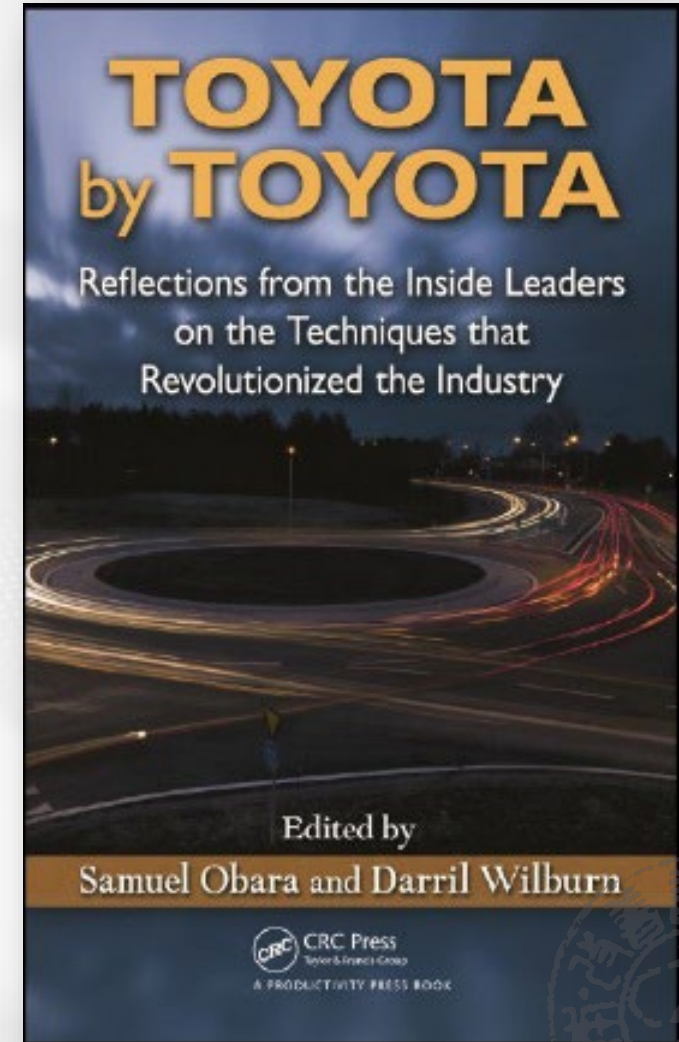
Partner at Honsha

- Lean Transformation Organization

Former Toyota

- S-Toyota Brazil, Japan, Venezuela

Co-Author of “Toyota by Toyota”

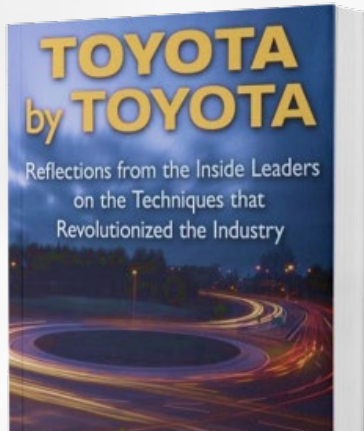




OUR MISSION

To develop capabilities within organizations so they can achieve excellence while utilizing their own resources





LEAN FOR HOPE



Over **150** Banks certified Honsha Academy

Automakers

Kaizen Culture

Our experience, will help you improve operation performance.

17 proven curriculum

Implementation in **20** countries



Schools honsha™
Hospitals honsha™

Military

More than **300** companies helped

Food and Beverage
Consulting firms

Over **60** senior associates
Humanitarian missions
Aeronautics

Entertainment

Over **80,000** people trained

LEAN FOR HOPE

Mombasa



East Timor



Venezuelans



Nairobi



Ethiopia



Amazon



LEAN FOR HOPE



HAITÍ



MANAUS



CEARÁ



SÃO PAULO

ETIOPÍA

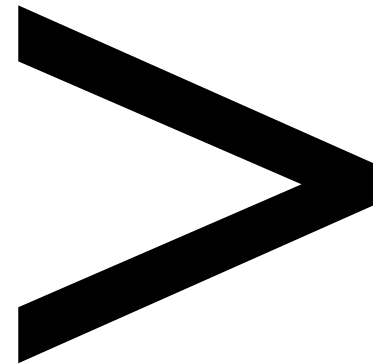


KENIA



TIMOR ORIENTAL





GM posts record 2Q profit



July 18, 2000: 11:54 a.m. ET

Automaker beats forecasts despite drop in North American share, profits

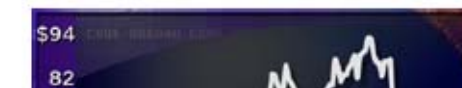
NEW YORK (CNNfn) - General Motors Corp. reported a record second-quarter profit Tuesday, beating Wall Street forecasts despite some loss of market share in its home market.

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Company officials say that, despite some softness in North American sales, it is on target to meet forecasts of a record profit for the year -- and that it is eyeing additional share repurchases as a way of continuing to improve earnings per share.

The world's largest automaker reported second-quarter net income of \$1.8 billion, or \$2.93 a diluted share -- above consensus forecasts of \$2.82 a share, according to First Call, which tracks analysts' estimates. A year earlier, earnings were \$1.7 billion, or \$2.66 a share.

Revenue rose to a record \$48.7 billion in the quarter from \$45.1 billion as the number of vehicles sold rose to 2.36 million worldwide from 2.33 million.



But GM actually had lower operating income from its core North American auto



BUSINESS

DOLLAR
ONE U.S. DOLLAR EQUALS
PESO \uparrow +0.094 10.792
YEN \downarrow -2.09 112.63
EURO \downarrow -0.0037 0.6832
INSIDE: Market roundup C2

THURSDAY
November 8, 2007



THE SAN DIEGO
UNION-TRIBUNE

7 & THE ECONOMY

Virgin America, praised for its low-cost, high-tech flights



GM sets company record for worst loss in quarter

Shares fall more than
6%; S&P lowers rating

By Tom Krisher
ASSOCIATED PRESS

DETROIT — General Motors posted a company-record \$39 billion loss yesterday for the third quarter, as a charge involving unused tax credits brought an abrupt end to a string of three profitable quarters for the na-

Moneyline

Tuesday markets



Index	Close	Change
Nasdaq composite	1528.59	▲ 26.79
Standard & Poor's 500	797.87	▲ 10.34
Treasury note, 10-year yield	2.67%	▼ 0.05
USA 10-year Internet 50	93.89	▲ 1.89
Oil, light sweet crude, barrel	34.66	▲ 1.25
Euro (dollars per euro)	\$1.3281	▲ 0.0122
Yen per dollar	99.07	▲ 1.9500

GM's new CEO open to bankruptcy

Henderson's plan will go 'deeper, harder and faster'

By Sharon Sileo Carty
USA TODAY

DETROIT — General Motors CEO Frederick Henderson said Tuesday GM will do whatever it takes to meet the government's restructuring goals, even if it means a Chapter 11 bankruptcy filing.

Standing on the same stage at GM headquarters where just six weeks ago then-CEO Rick Wagoner laid out what he called a "significantly more aggressive" restructuring plan, Henderson said GM will do more. More plants could close. Dealers could shut down faster than expected. More jobs could be lost. Henderson said the new plan would go "deeper, harder and faster" to meet the goals. And, he added, a bankruptcy filing is starting to seem more probable. "If I was op-

posed to bankruptcy," he said, "I would have said no" to becoming GM's CEO.

Wagoner's Feb. 17 plan called for closing five more plants in the United States than previously announced, helping total plant closures over the next three years to 14, eliminating 47,000 jobs worldwide this year and shedding 20,000 in the U.S. by 2012.

Wagoner, ousted over the weekend by President Obama's automotive task force, had long opposed filing for bankruptcy protection as a strategy for cutting GM's debt load and firing more competitive labor contracts on union workers. He feared a bankruptcy filing would dry up GM's customer base if people leaving the company was going out of business avoided buying its vehicles.

Obama's plan, laid out Monday, calls for the government to backstop GM and Chrysler warranties, which might allay buyer concerns. The companies



Henderson: New CEO a GM veteran.

have gotten a combined \$17.4 billion in federal loans, which have kept them afloat during the sales collapse, and have asked for \$21.6 billion more.

The auto task force judged the automakers' plans to become viable inadequate, however, and Obama on Monday gave GM 60 days to meet more rigorous targets before it could qualify. Chrysler, judged not able to stand alone, got 30 days to complete its proposed partnership with Fiat.

Some GM watchers doubt Henderson, a Detroit native who worked so closely with Wagoner he said he knew what Wagoner was thinking after a few words, can make the changes.

He "seems to have a very similar background to Wagoner," says Stephen Spivey, senior auto industry analyst for Frost & Sullivan. "I'm just not sure it's going to make a difference."

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Source: Dow Jones Markets, MarketWatch.com

Market scoreboard with currencies, 48



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Consumer confidence holds steady

Consumer confidence held steady in March, with a slight dip upward halting three months of declines as slivers of hope about the economy buoyed consumers. The Conference Board said Tuesday that its consumer confidence index rose to 26.0 in March from a revised 25.3 reading in February, which was itself a big drop from 37.4 in January. The rise followed three consecutive monthly drops but the reading came in below the 28 expected by economists surveyed by Thomson Reuters, and remains less than half of its level of 65.9 last March.

Honda offers buyouts, cuts production

Honda Motor is offering voluntary buyouts, cutting workers' pay and imposing 13 non-production days at its North American plants to cut production this summer by 62,000 vehicles. Honda said Tuesday that the buyouts will be offered to most of the Japanese automaker's 35,600 employees in the U.S., Canada and Mexico, and some enhanced retirement packages are being offered.

SEC accuses financier of scam

A financier who allegedly raised more than \$6 billion by telling investors their money would support Third World causes was charged Tuesday with illegal spending part of the money on a Mercedes, vacations and private schools for his kids. The case, filed by the Securities and Exchange Commission, charged John Min and his company, Dime Financial Group. Min attracted investors by associating himself with a religious and philanthropic community in the Pacific Northwest, the SEC alleged.

Treasury extends guarantee program

The Treasury Department on Tuesday announced an extension of its temporary program to guarantee money market investments. The guarantee, which was set to expire April 30, was extended to Sept. 30 "to support ongoing stability in financial markets," the agency said. The new expiration date marks one year from issuance of the guarantee to

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Rectangular Snip



Ford shares Toyota's vision

American automaker has Japanese aspirations

By Chris Woodard
USA TODAY

With its crestfallen rivals on the ropes, Ford Motor is painting itself as Detroit's stand-out — the only U.S. automaker weathering the auto sales depression without taxpayer life support.

While that may be a short-term accomplishment, Ford is reaching for much more. CEO Alan Mulally is trying to guide the 105-year-old company closer to the model of a foreign rival he makes no secret of having long admired: Toyota. In doing so, the company is anticipating how the auto world may be realigned by the time the global economy finally rebounds.

"I would love people in the future to say, 'There's Toyota and Honda and Ford,'" says Ford's North American chief Mark Fields. "We have the

goods to do it."

In more than two years on the job, Mulally has tried to instill in Ford Toyota-like discipline and global product integration. He is intent on polishing into a jewel the Ford brand that had been allowed to become ho-hum. Like the Japanese company's famously long view, Mulally wants to look decades down the road, not months.

Make no mistake: Ford's emulation of the indus-

Please see COVER STORY next page ▶

Cover story

FORTUNE

THE WORLD'S MOST ADMIRABLE COMPANIES



■ Toyota hopes its full-sized truck, the Tundra, will lead a category dominated by Detroit.

1. General Electric
2. Toyota
3. Procter & Gamble
4. FedEx
5. Johnson & Johnson
6. Microsoft
7. Dell
8. Berkshire Hathaway
9. Apple Computer
10. Wal-Mart

No surprise here: General Electric is the World's Most Admired Company—for the sixth time in eight years. But the breakout performer on our global list is Toyota. By rising three spots to replace Wal-Mart as No. 2, Toyota became the highest-ranking non-U.S. company in the nine-year history of the international Most Admired list. Japan's top carmaker is churning out profits in a tough industry, earning \$11.4 billion in 2005—more than the next 12 carmakers combined. By the end of 2006, Toyota is set to overtake GM as the world's biggest producer of cars and trucks.

As in past years, the global list was dominated by American companies, which took 16 out of the top 20 positions and 32 of 50 overall. The survey's 8,645 executives, directors, and analysts in 23 countries and at 351 companies (211 outside the U.S.) rewarded companies that delivered results. Europe's top company, BMW (No. 13), is the world's luxury-car leader—overall sales volume grew 5.5% to set a new record. Singapore Airlines (No. 19) jumped nine spots. Nokia hung in there at No. 20, making it the highest-ranking telecom company. And South Korean consumer electronics leader Samsung (No. 27) jumped 12 spots. For the first time that put it ahead of archrival Sony, which fell 19 places to No. 34. — *Telis Demos*

Source: Fortune magazine - 2006

Toyota gives Virginia Mason docs a lesson in lean

At Virginia Mason Medical Center, doctors are required to understand firsthand how Toyota manufactures cars.

First, Virginia Mason's senior executives traveled to Japan to work on Toyota's manufacturing floor. Then a contingent of doctors and managers did the same thing.

Maximizing Hospital Outcomes with Tips from Toyota: Using Less to Do More

Virginia Mason Medical Center has incorporated its quality philosophy by taking a page from Toyota's manufacturing system. The goal: to gain a quality, safety, and performance edge. Can the plan work in your institution?

"We've done two trips to Japan, and will do another in the near future," said Virginia Mason's CEO, Dr. Gary Kaplan.

It's all about learning the techniques of what's called "lean manufacturing," and then applying them to health care.

"Lean" means doing without what's not needed, said VM president Mike Rona. "It's taking out the unnecessary stuff in processes," so that everything's more efficient.

"Eliminating waste, things that add no value, that's what this is about," said Kaplan, who sometimes refers to Virginia Mason not as a

hospital and clinic network but as "the company."

According to mathematician and consultant W. Edwards Deming, as much of 40 percent of a company's expenses result from waste -- systems and processes that are poorly designed, Kaplan said.

Waste and the quality of health care are linked, Kaplan said. Waste is directly related to low patient and employee satisfaction, poor customer service and errors in medical treatment.

Virginia Mason's been working to eliminate waste in all its forms during the past few years. It's paid off.

The dollar value of respiratory-care inventory supplies, for instance, has been slashed 45 percent. Savings on space have accrued as well.

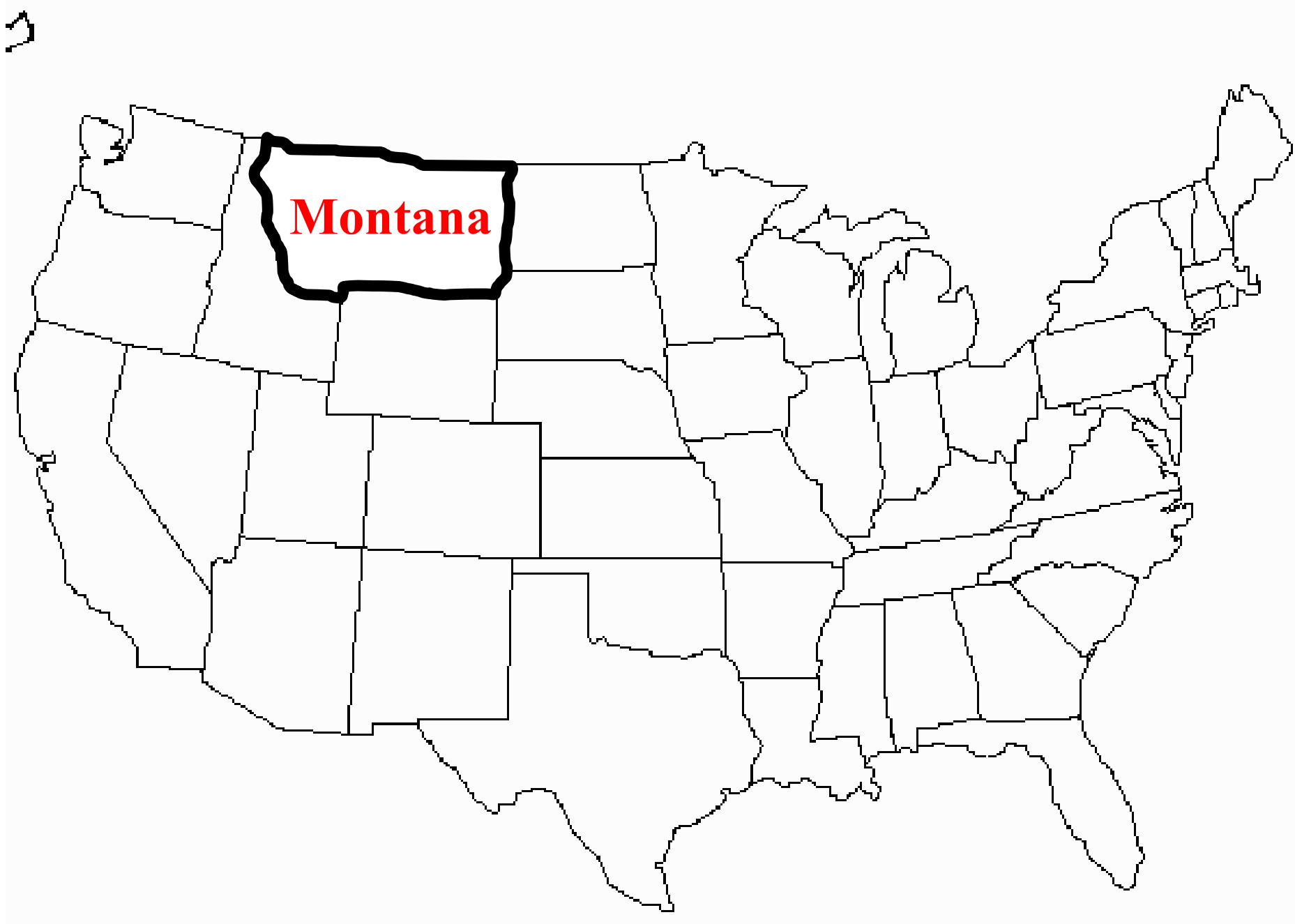
Radiation oncology staff cut the time from patient check-in to leaving the department from 42 minutes to 15.

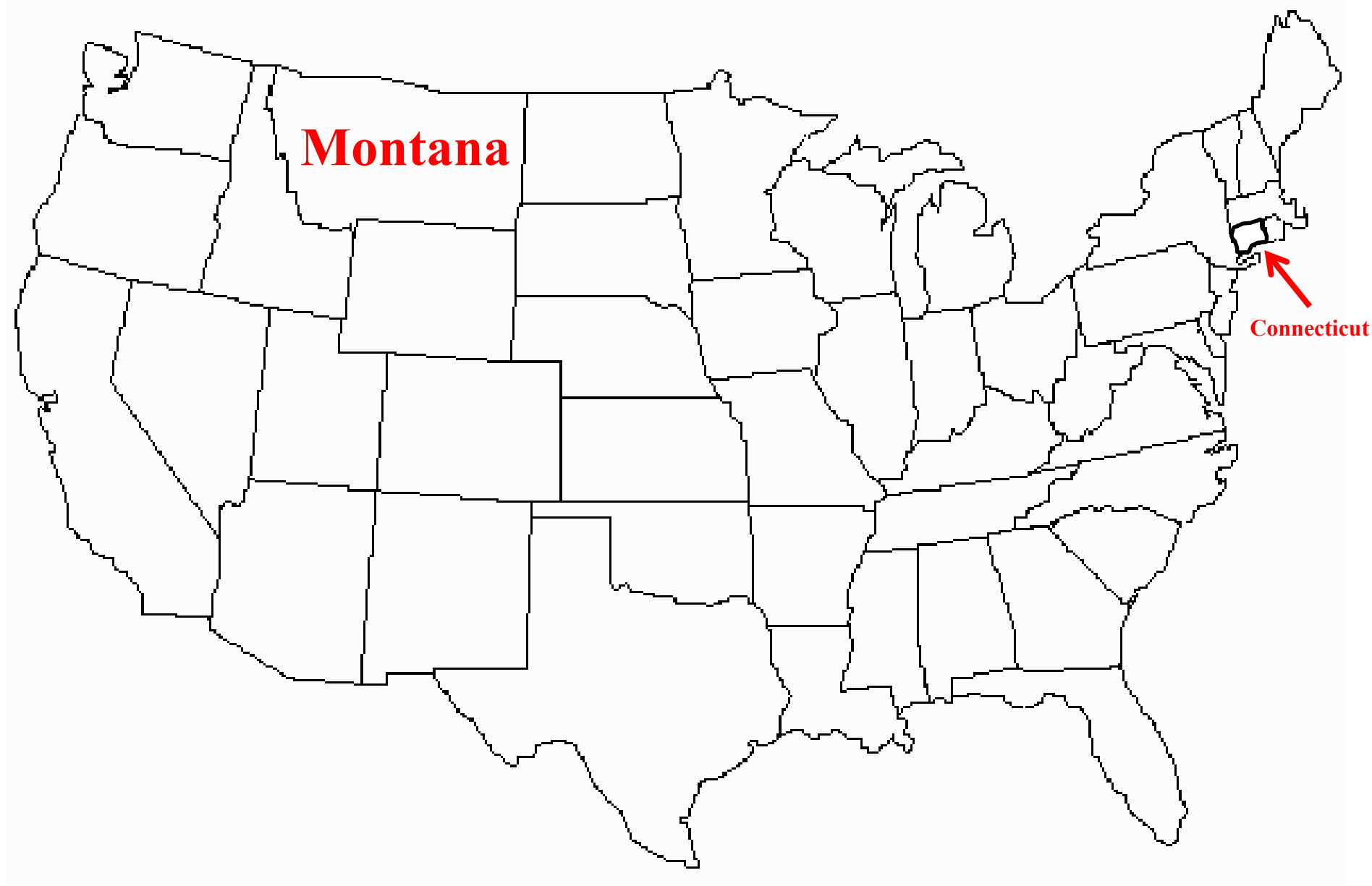
W. Edwards Deming



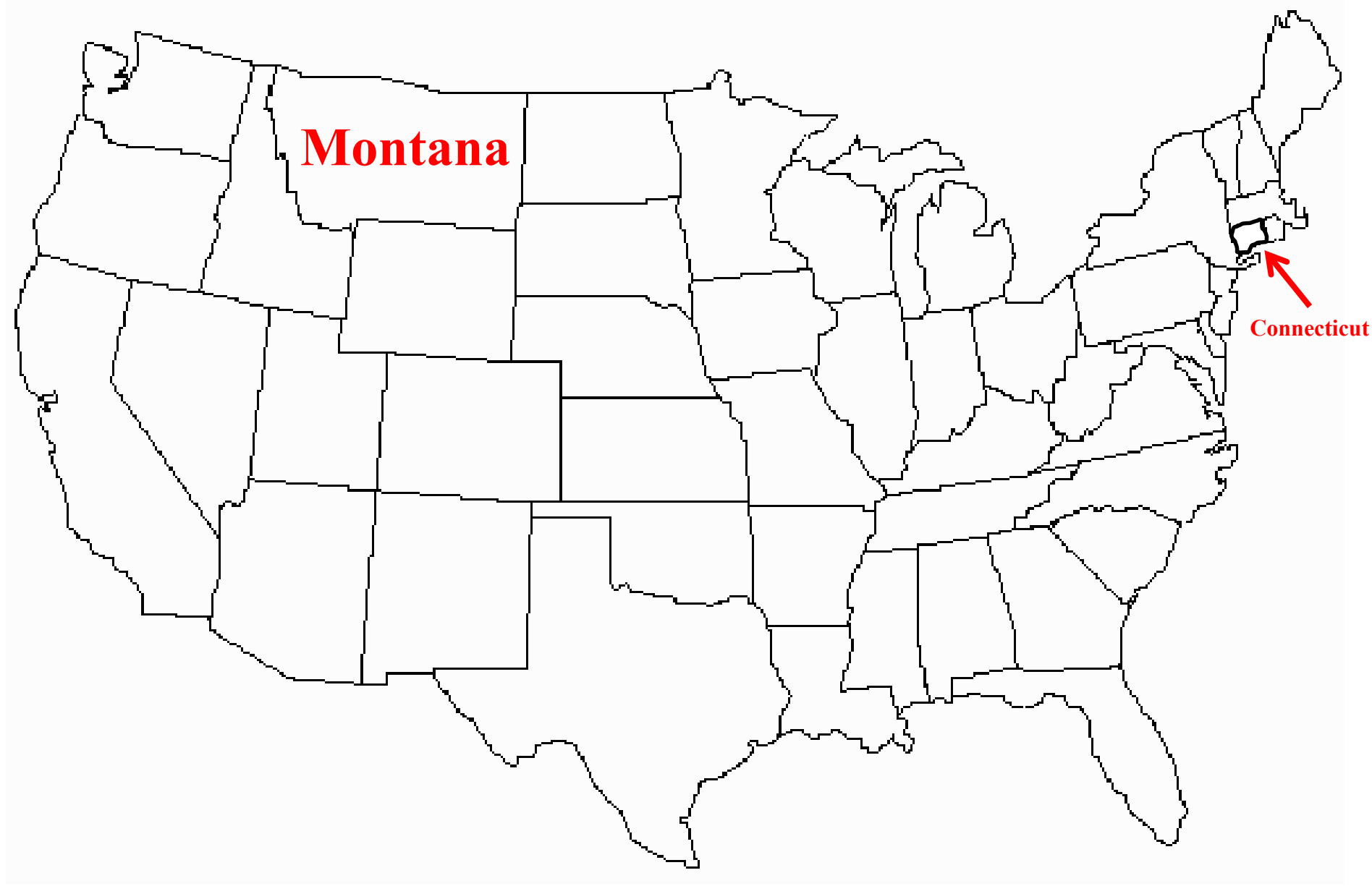
“40% of everything we do is pure waste!”











50	 Yemen
51	 Thailand
52	 Spain
53	 Turkmenistan
54	 Cameroon
55	 Papua New Guinea
56	 Sweden
57	 Uzbekistan
58	 Morocco
59	 Iraq
60	 Paraguay
61	 Zimbabwe
62	 Japan

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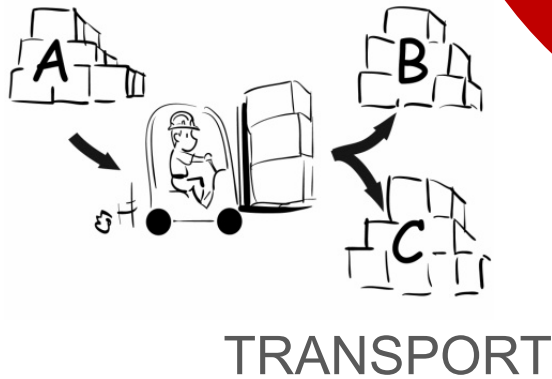
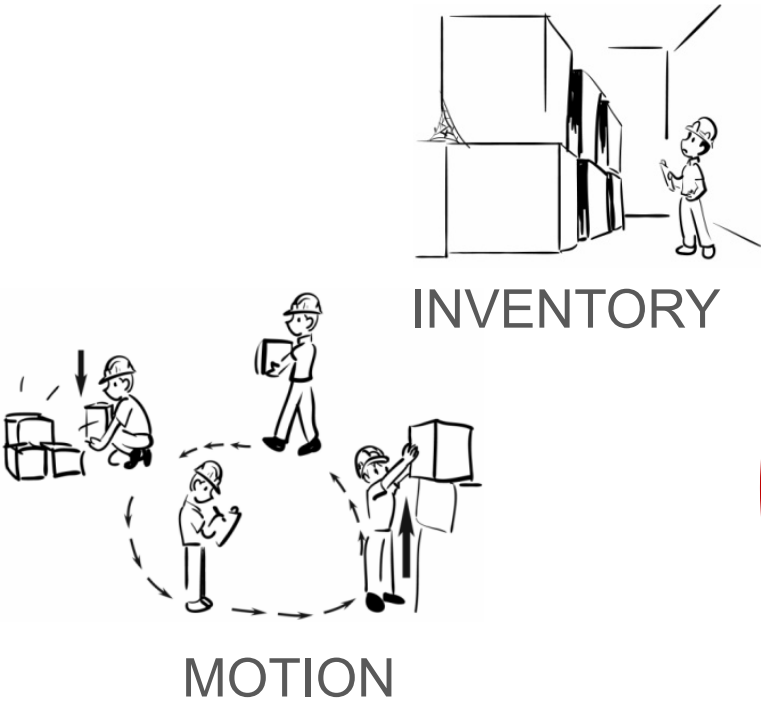




"99% of what we do is waste"

- Taiichi Ohno.

THE NEED TO ELIMINATE WASTE







改善事例

コード番号の短縮化

はやい!

001210



0121



●改善前

パソコンのコード番号が6桁あった。

●改善後

コード番号を4桁に短縮した。

(例：001210 → 0121)

4桁にしても問題がないことは、確認済み。関係者の了解も得た。

●効果

コード番号を入力する回数が、一日に結構多かったので時間短縮になった。また、入力ミスも減った。



honsha

honsha

honsha

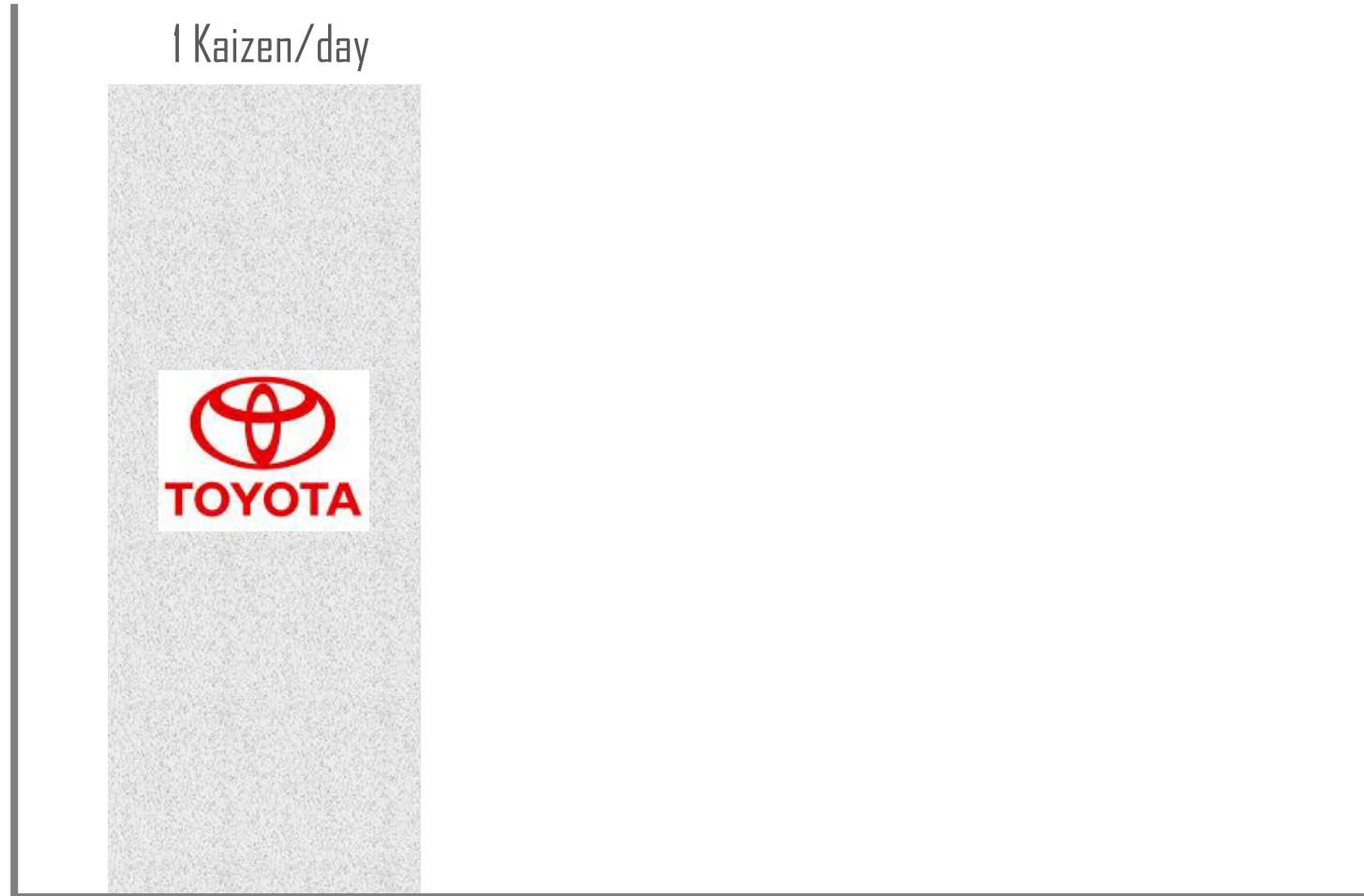
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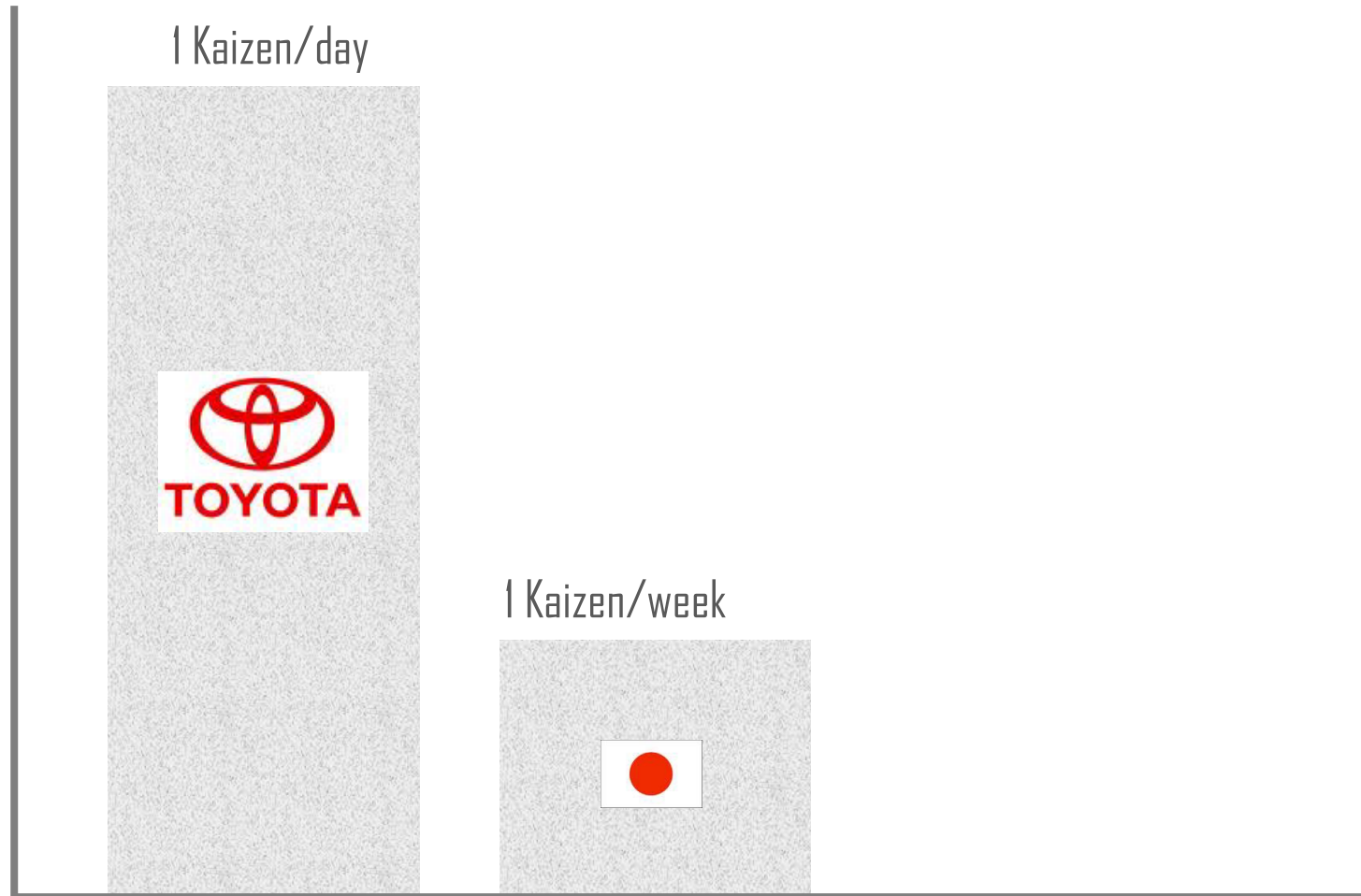
KAIZEN

The Key to Continuous Improvement



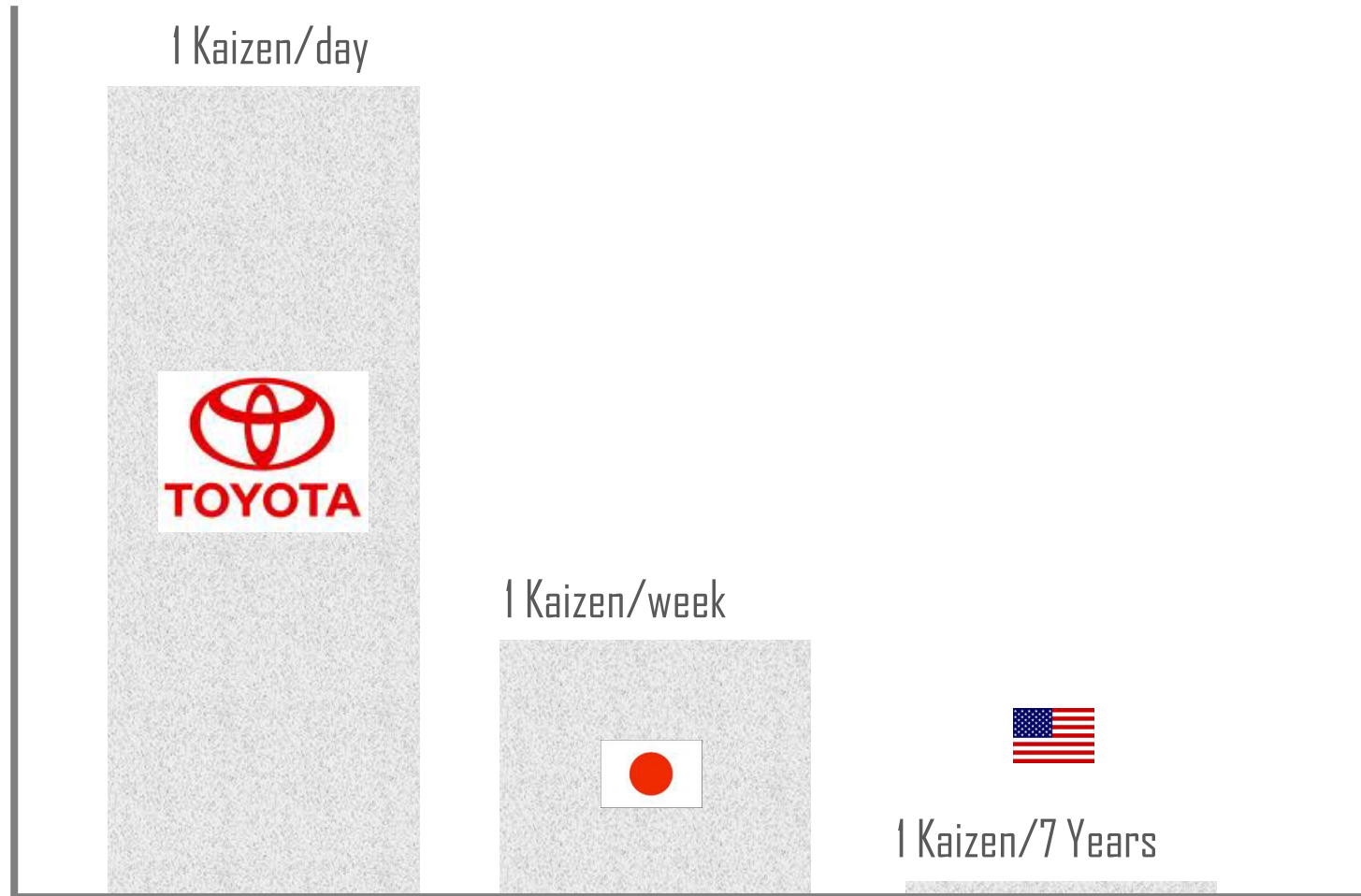
KAIZEN

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KAIZEN

The Key to Continuous Improvement



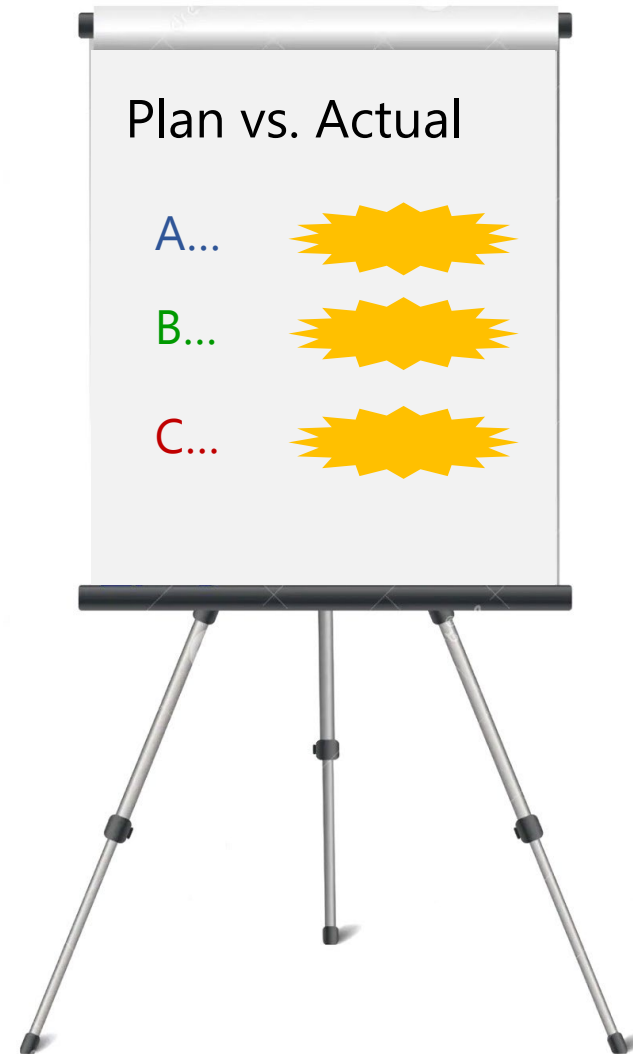
Welcome to UnTwistTheNails Inc.



- We wish you great success in your new position!
- Your job is to take the nails apart.
- Your supervisor will distribute your work and then observe you looking for signs of the smartest and most productive Team Members.

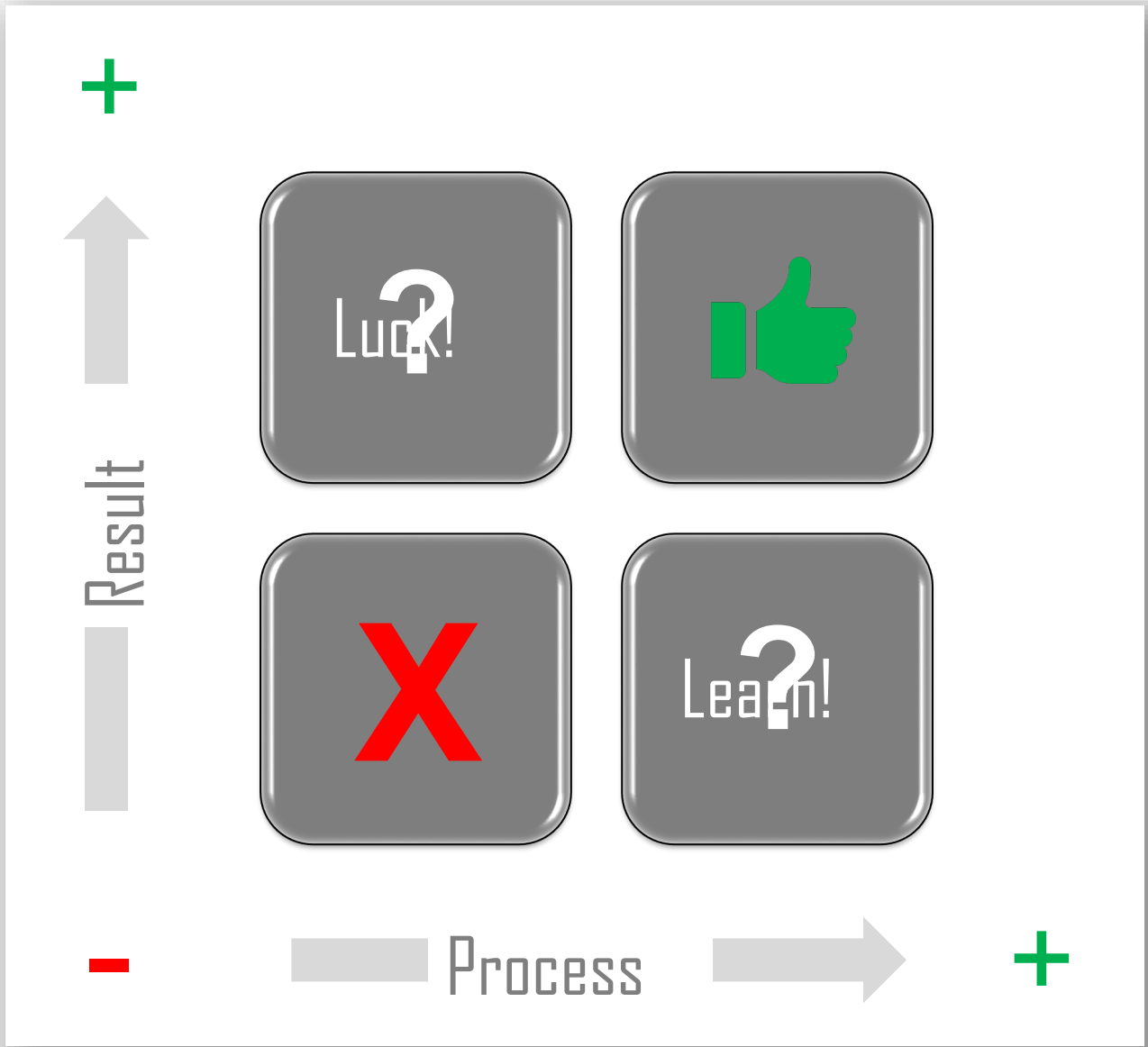
KAIZEN TEIAN

What Improvements can be made?



BOTH RESULTS *and* PROCESS

My nails fell apart



How did I do it?

WHAT'S THE PURPOSE OF KAIZEN?

Don't start if you don't know
the purpose

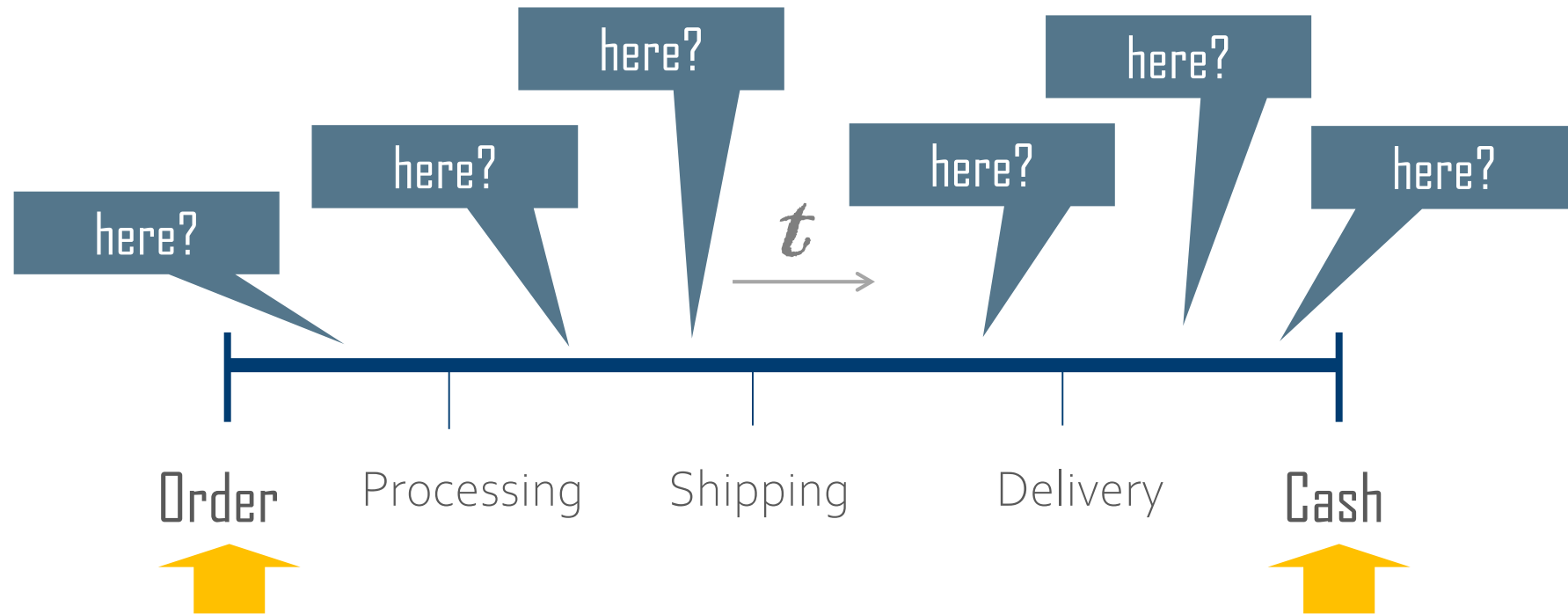




PURPOSE

WHERE IS THE WASTE?

In Which Process?



If we see the waste, we can eliminate it

THE THREE PURPOSES



KAIZEN HAS THREE PURPOSES

KAIZEN HAS THREE PURPOSES

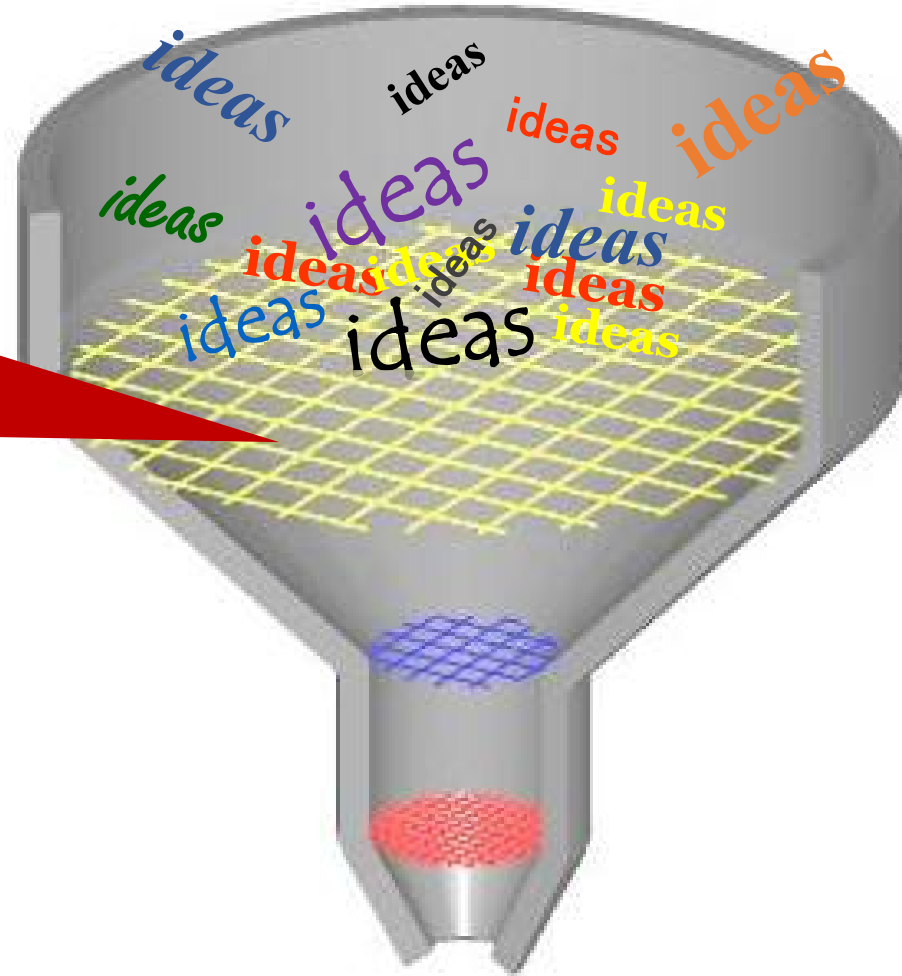
1. Improve
Safety

2.
Improve
Quality

3. Eliminate
Waste

KAIZEN

- 1) ¿Reduce Waste?
- ¿Improve Quality?
- ¿Improve Safety?



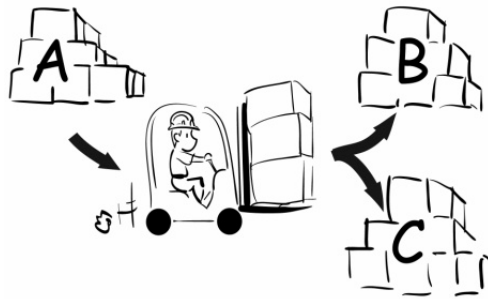
THE SEVEN WASTES



INVENTORY



MOTION



TRANSPORT



OVER-PRODUCTION



CORRECTION



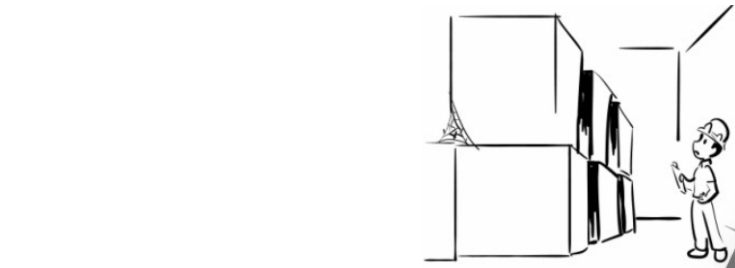
WAITING



OVER-PROCESSING



THE SEVEN WASTES



INVENTORY



MOTION



TRANSPORT



OVER-PRODUCTION



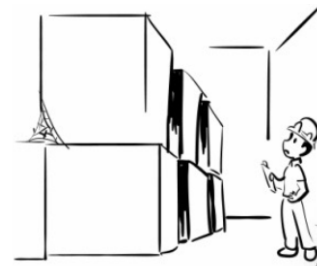
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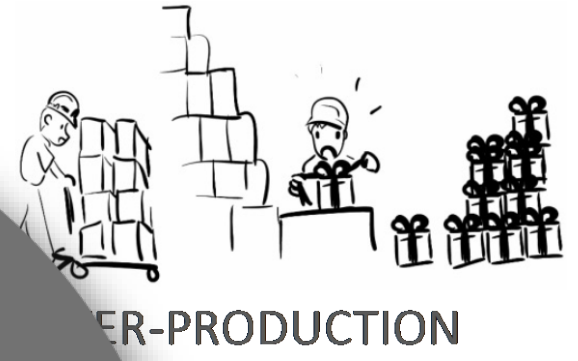
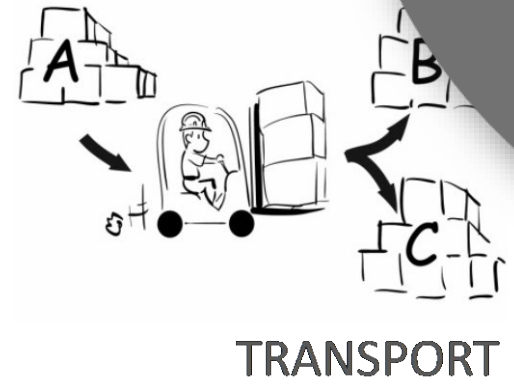
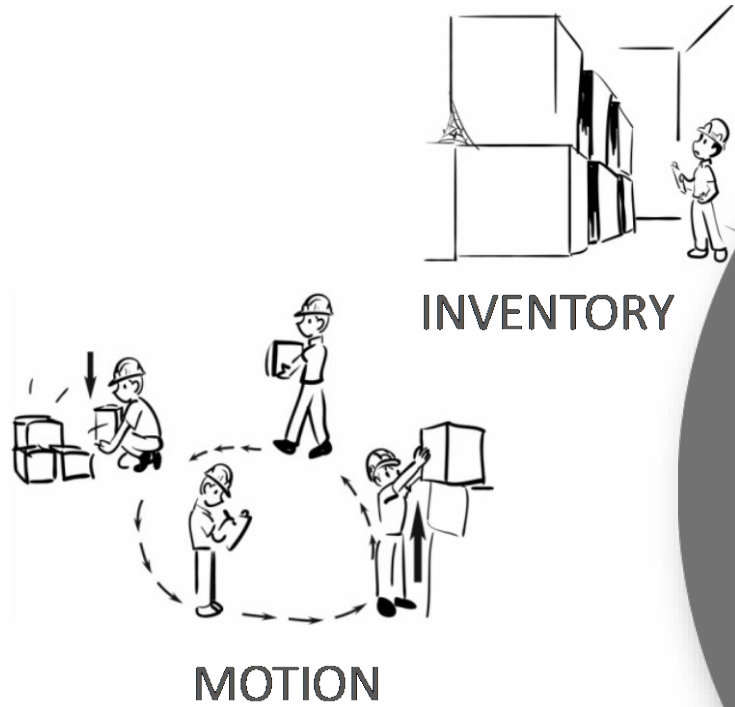
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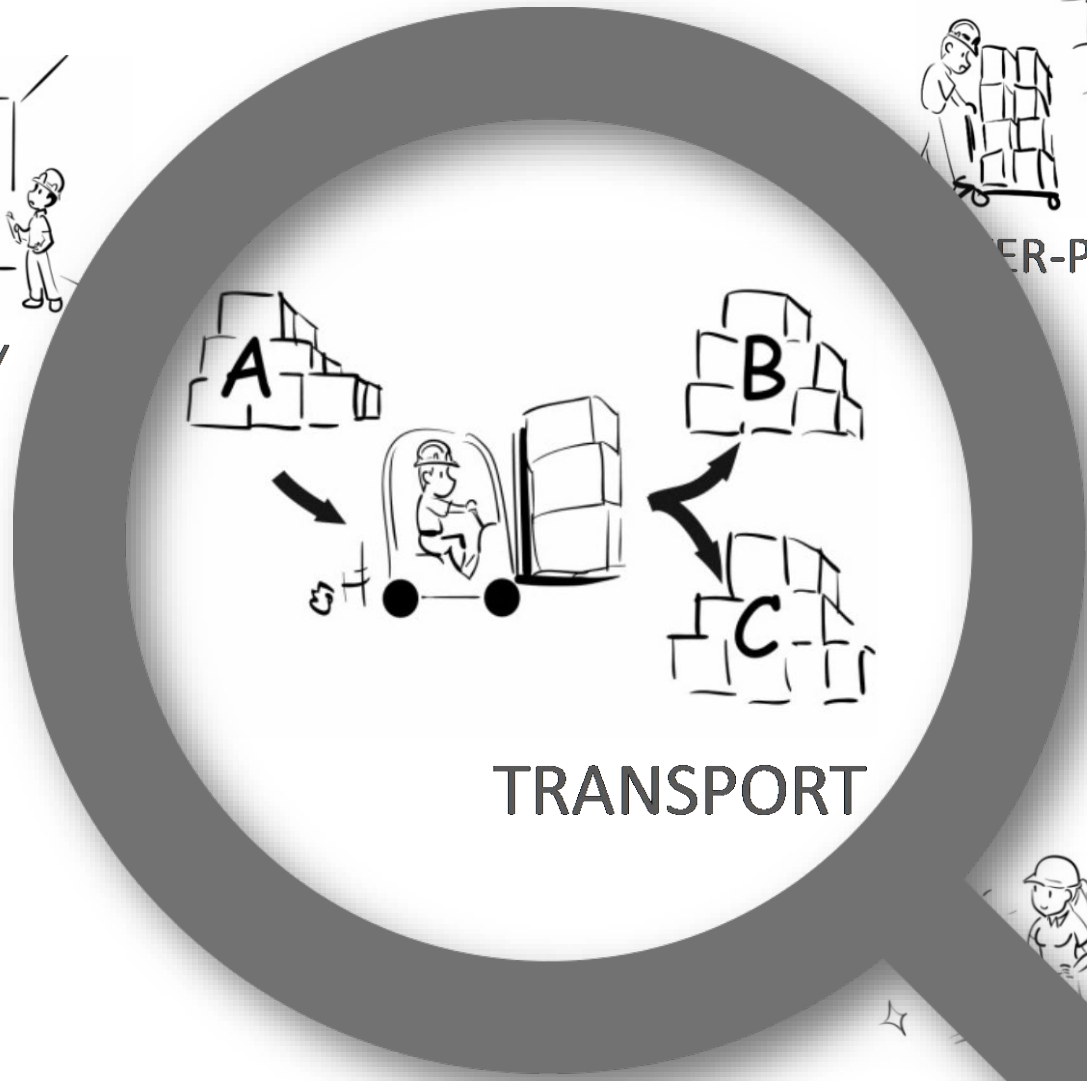
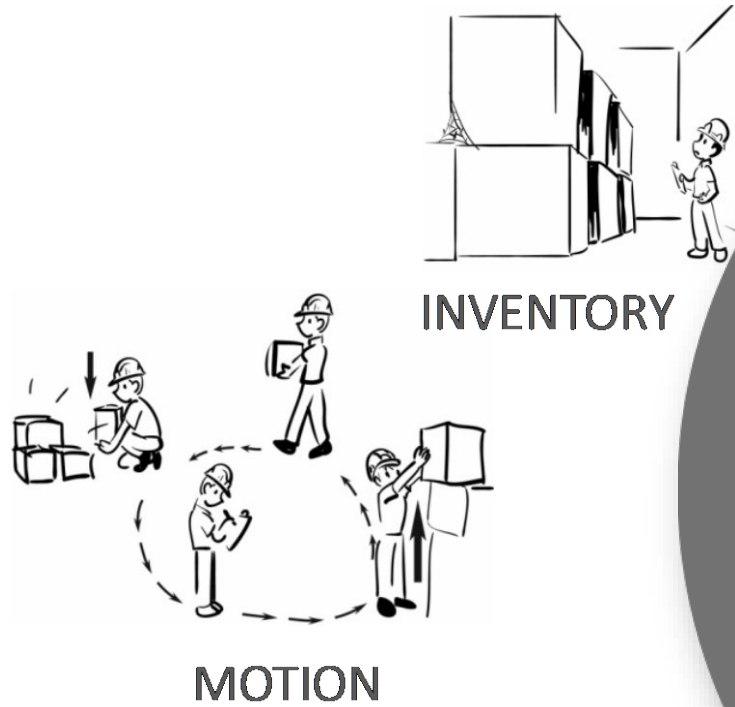
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OVER-PROCESSING

THE SEVEN WASTES

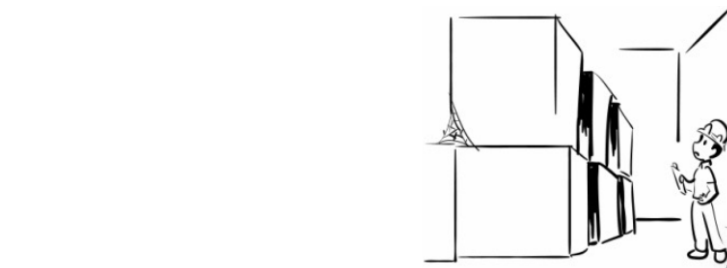


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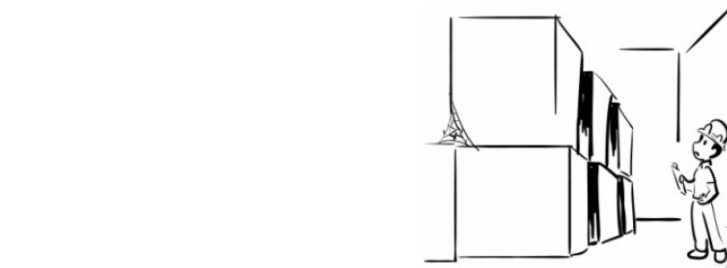
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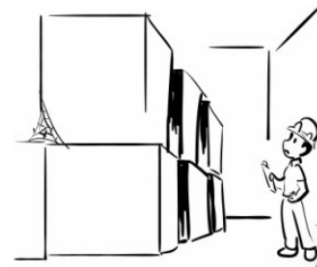
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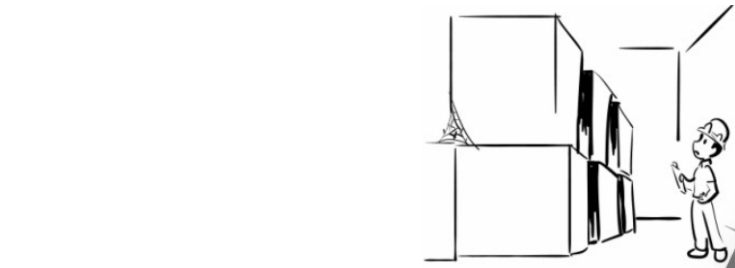


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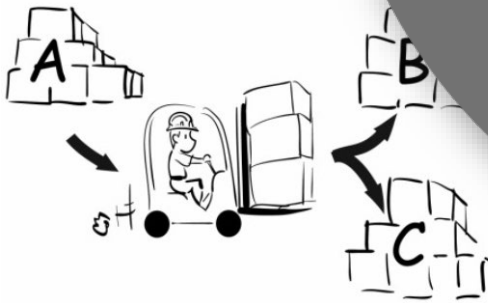
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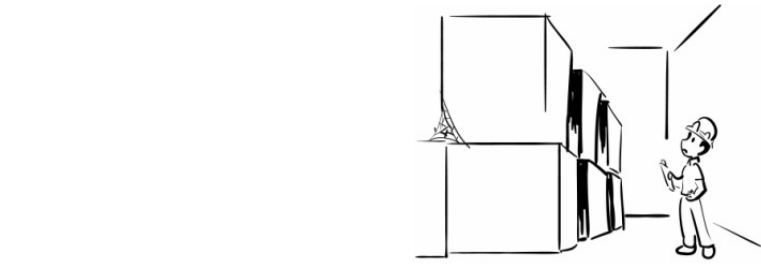
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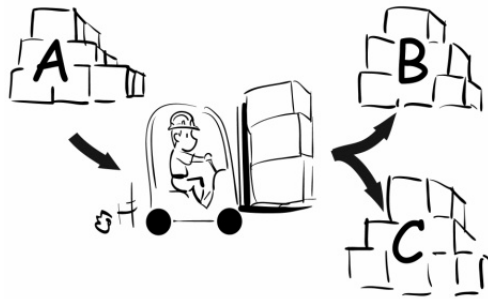
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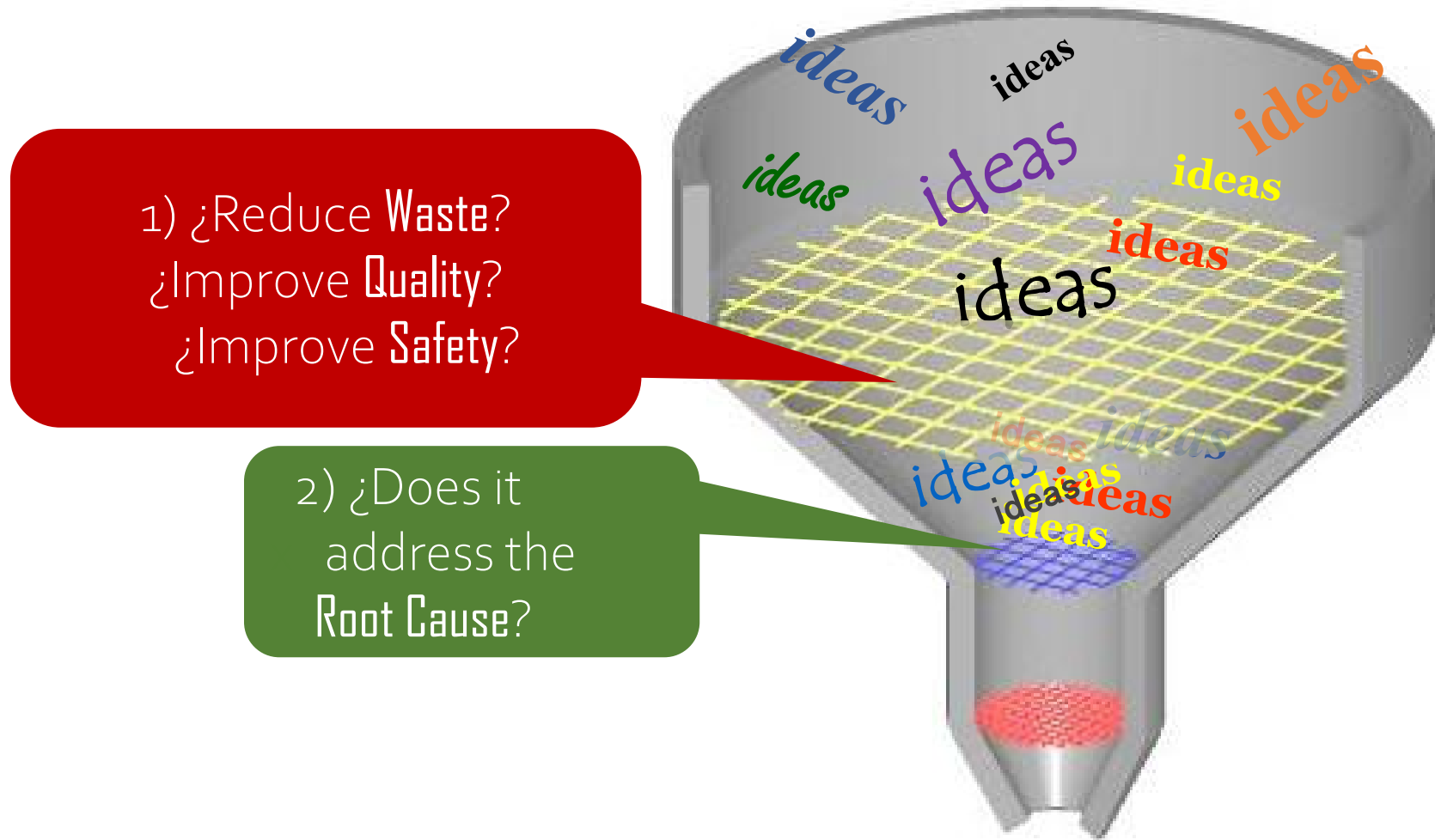


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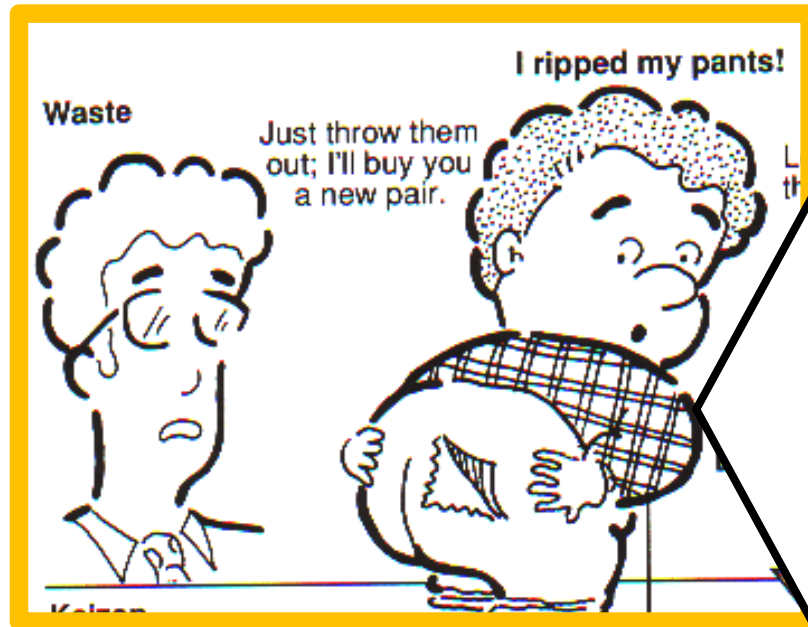
OVER-PROCESSING

KAIZEN



ROOT-CAUSE

Repair versus Kaizen



STAGE 1

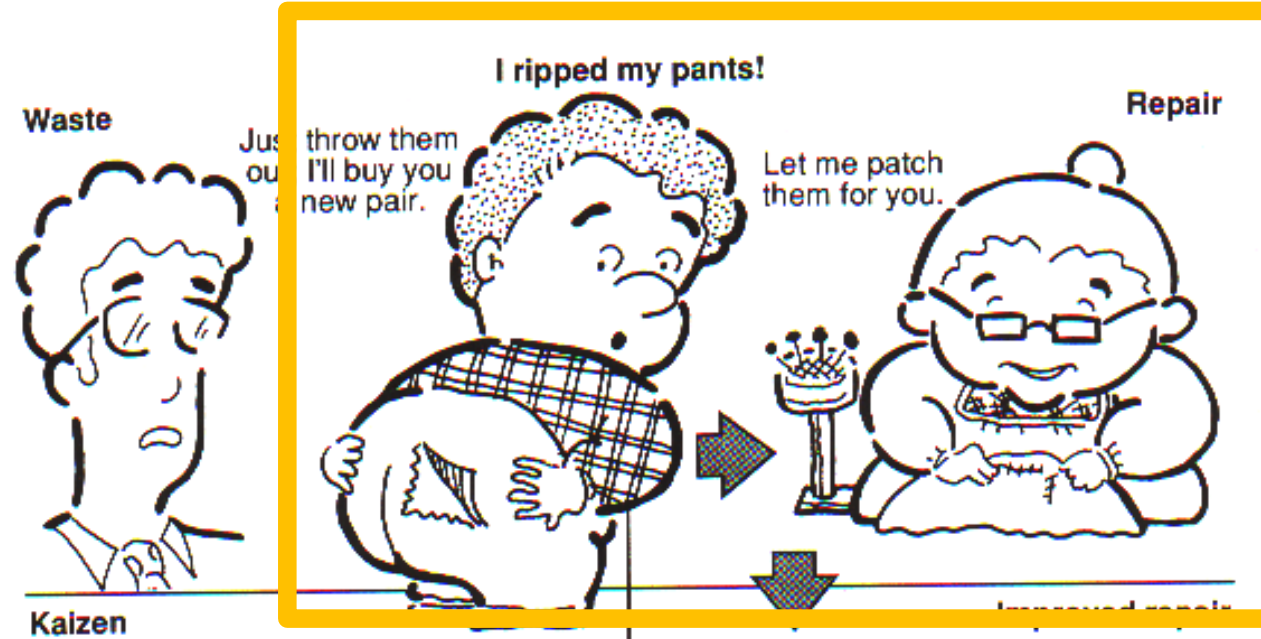
- NO THINKING
- WASTE

Improved repair

WASTE

ROOT-CAUSE

Repair versus Kaizen



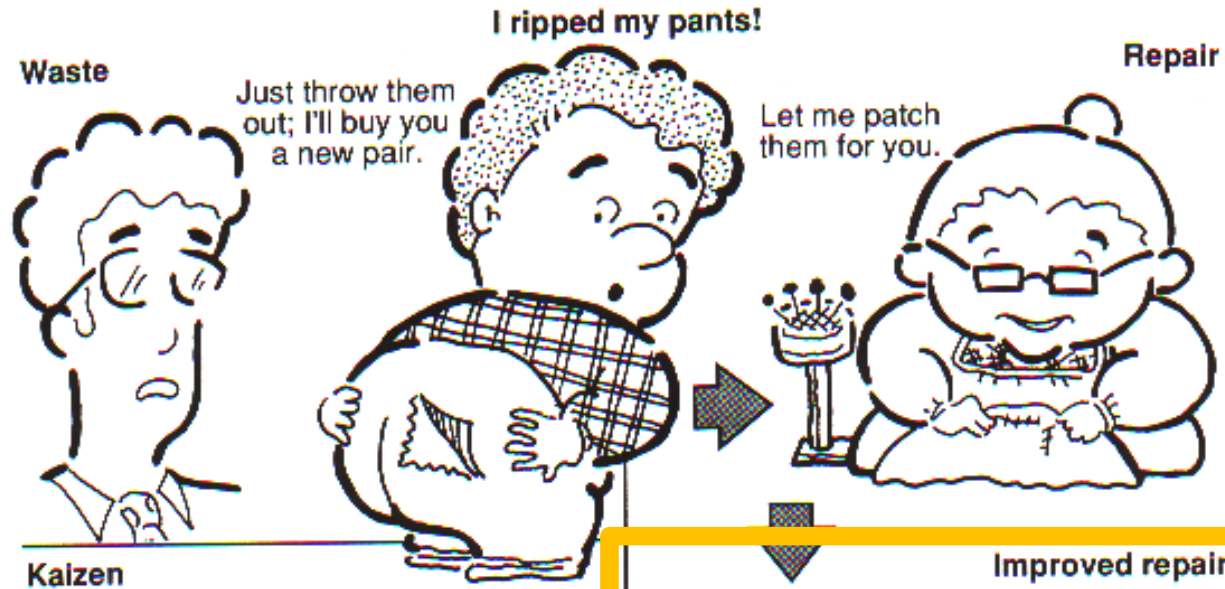
Stage 2

FIXING

Fixing is repetitive. Waste of correction.

ROOT-CAUSE

Repair versus Kaizen



Stage 3

IMPROVING

Improvement without standardization is not sustainable.

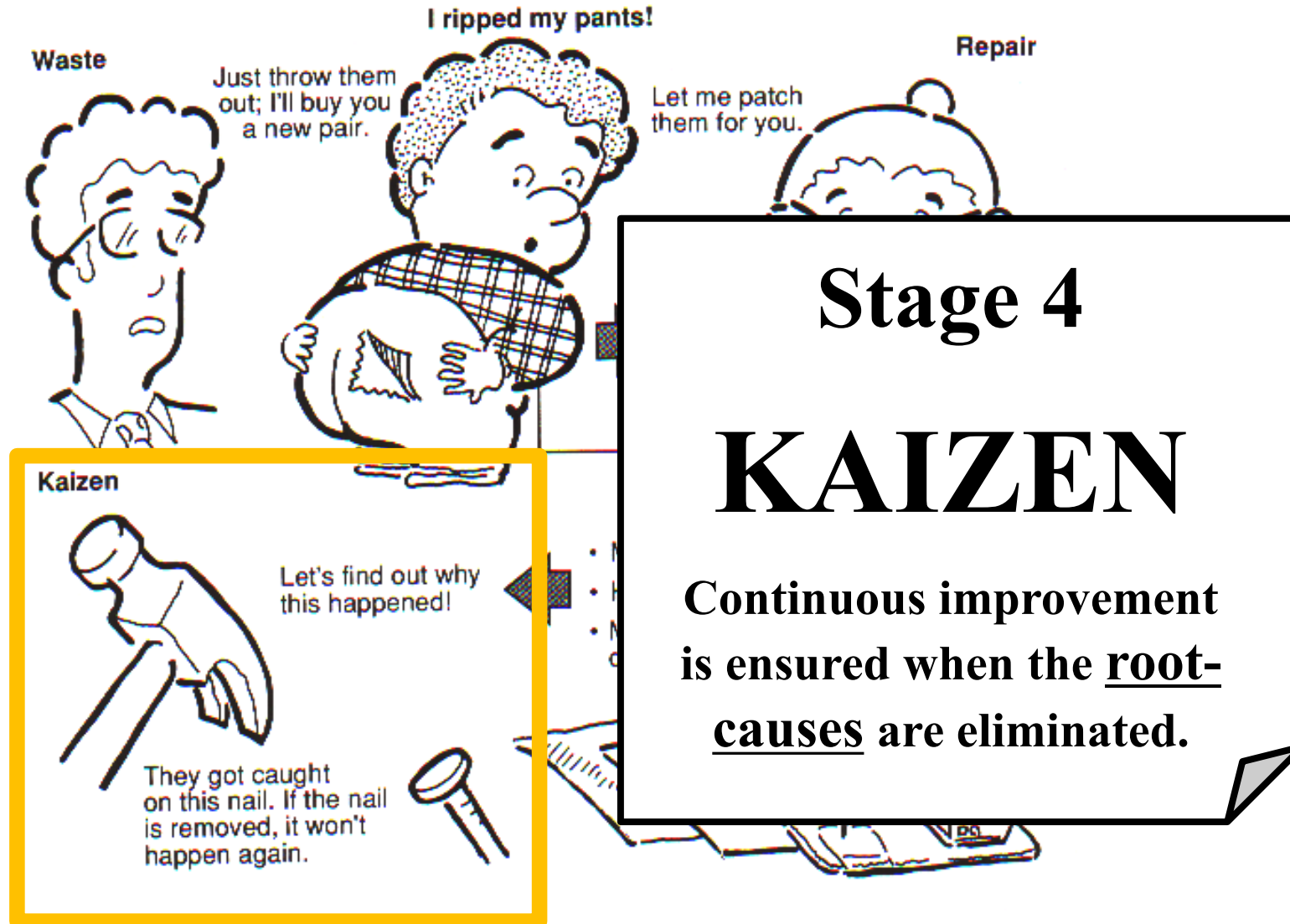
Improved repair

- Maybe I should use stronger thread...
- How about if I use double stitches...
- Maybe using a sewing machine will do the trick...



ROOT-CAUSE

Repair versus Kaizen

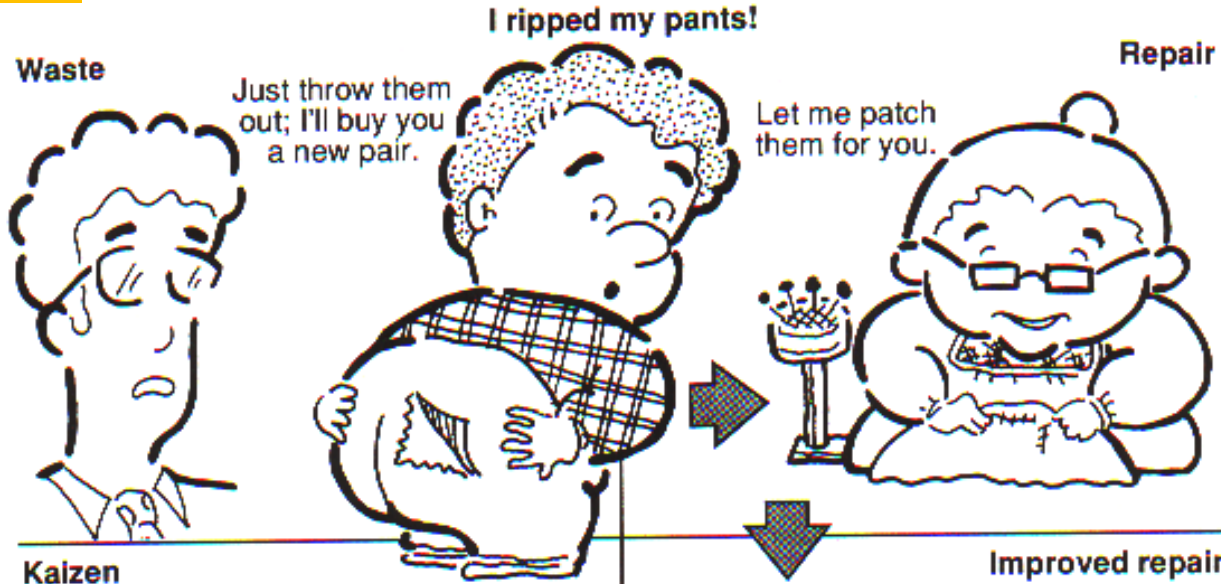


ROOT-CAUSE

1

Repair versus Kaizen

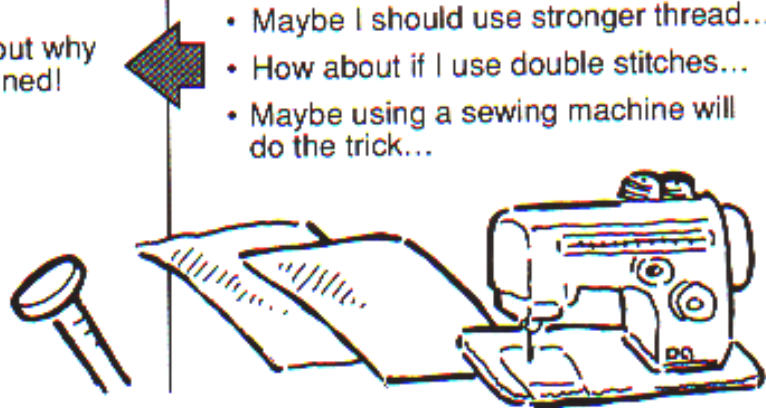
2



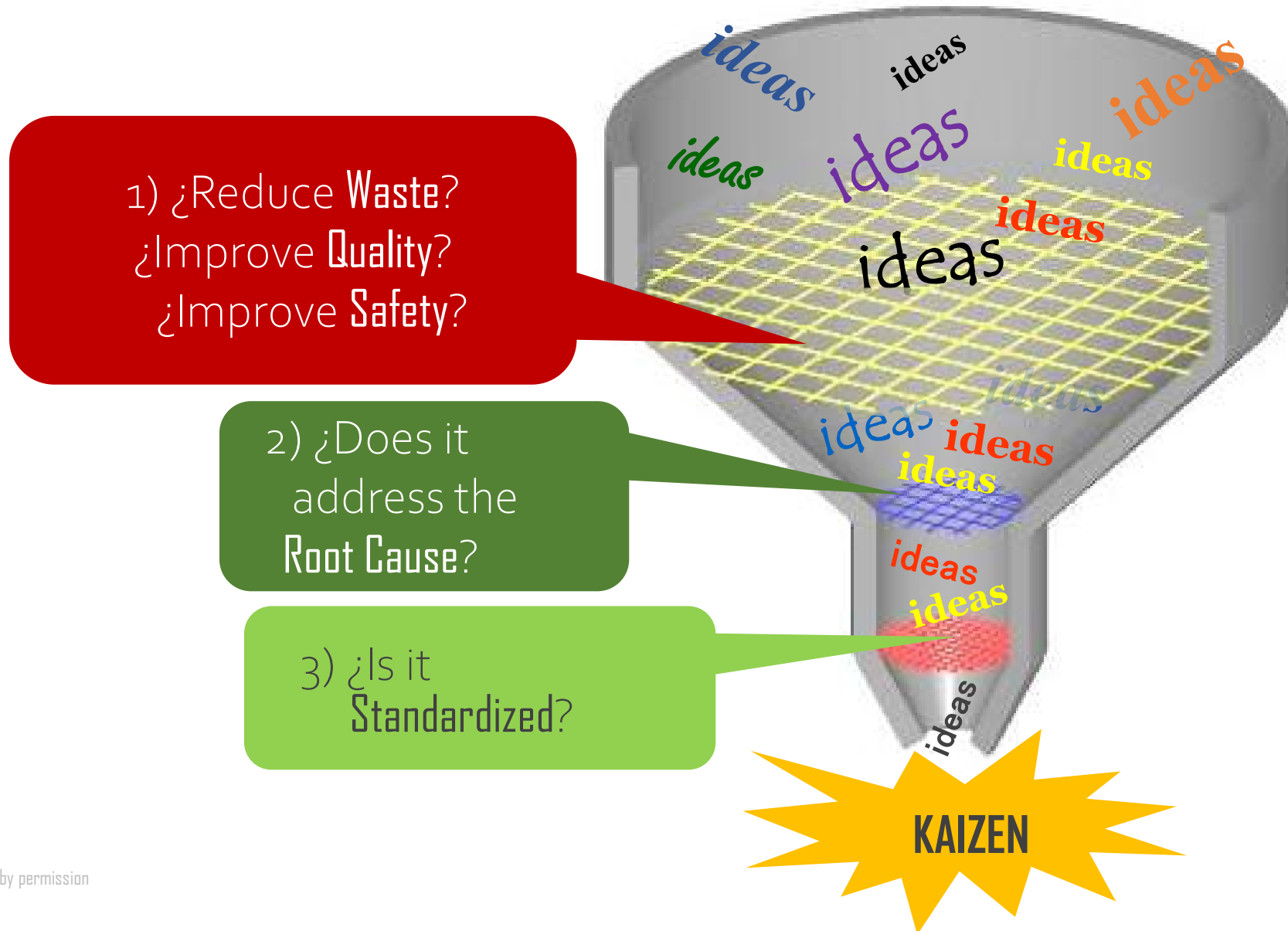
4



3



KAIZEN



A

SMALL BUT INCREMENTAL GAINS

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7
\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
8	9	10	11	12	13	14
\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
15	16	17	18	19	20	21
\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
22	23	24	25	26	27	28
\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
29	30	31				
\$1,000.00	\$1,000.00	\$1,000.00				



SMALL BUT INCREMENTAL GAINS

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7
\$0.01	\$0.02	\$0.04	\$0.08	\$0.16	\$0.32	\$0.64
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

B

SMALL BUT INCREMENTAL GAINS

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7
\$0.01	\$0.02	\$0.04	\$0.08	\$0.16	\$0.32	\$0.64
8	9	10	11	12	13	14
\$1.28	\$2.56	\$5.12	\$10.24	\$20.48	\$40.96	\$81.92
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

B

SMALL BUT INCREMENTAL GAINS

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7
\$0.01	\$0.02	\$0.04	\$0.08	\$0.16	\$0.32	\$0.64
8	9	10	11	12	13	14
\$1.28	\$2.56	\$5.12	\$10.24	\$20.48	\$40.96	\$81.92
15	16	17	18	19	20	21
\$163.84	\$327.68	\$655.36	\$1,310.72	\$2,621.44	\$5,242.88	\$10,485.76
22	23	24	25	26	27	28
29	30	31				

B

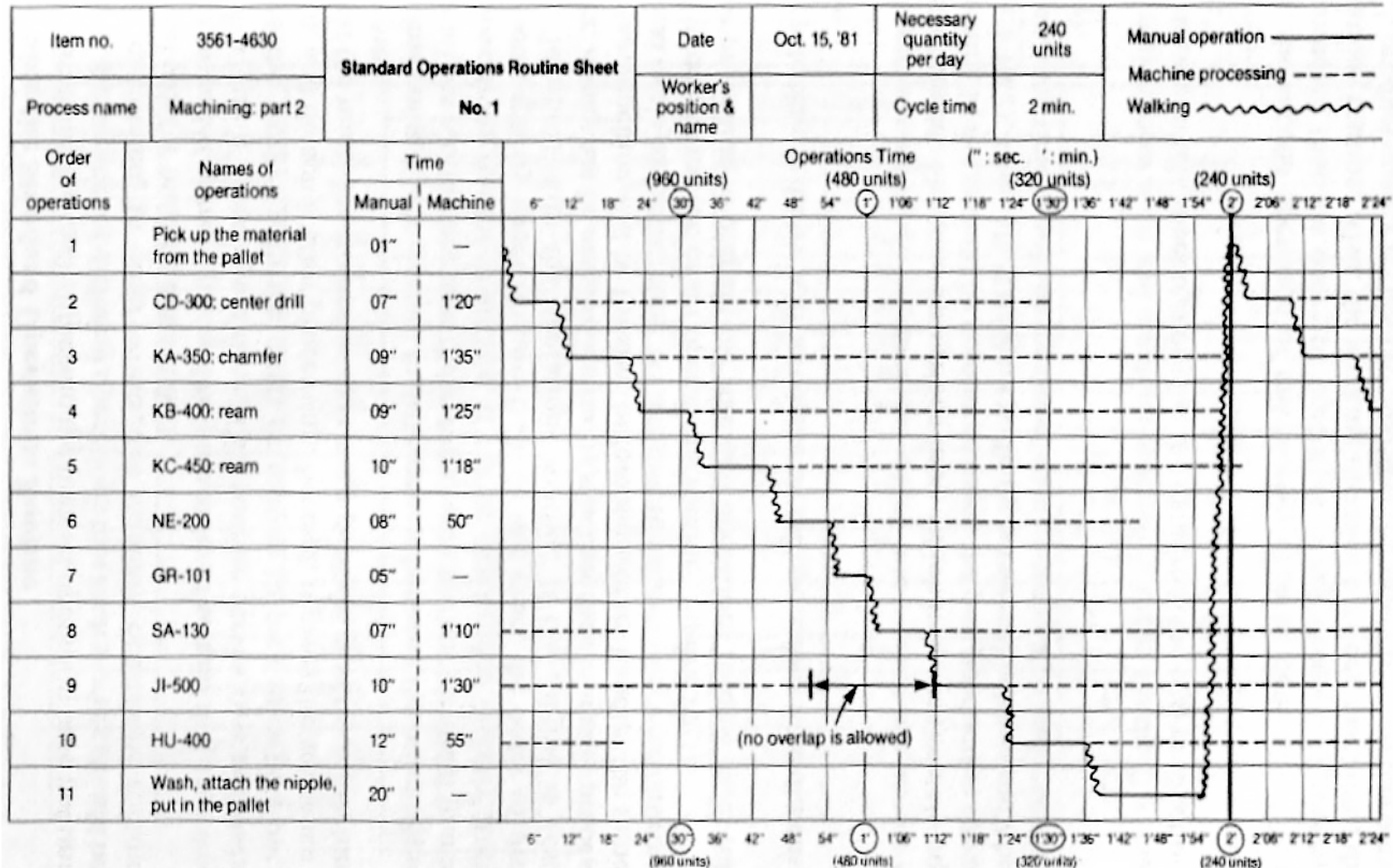
SMALL BUT INCREMENTAL GAINS

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7
\$0.01	\$0.02	\$0.04	\$0.08	\$0.16	\$0.32	\$0.64
8	9	10	11	12	13	14
\$1.28	\$2.56	\$5.12	\$10.24	\$20.48	\$40.96	\$81.92
15	16	17	18	19	20	21
\$163.84	\$327.68	\$655.36	\$1,310.72	\$2,621.44	\$5,242.88	\$10,485.76
22	23	24	25	26	27	28
\$20,971.53	\$41,943.04	\$83,886.08	\$167,772.16	\$335,544.32	\$671,088.64	\$1,342,177.20
29	30	31				
\$2,684,354.40	\$5,368,708.80	\$10,737,417.60				

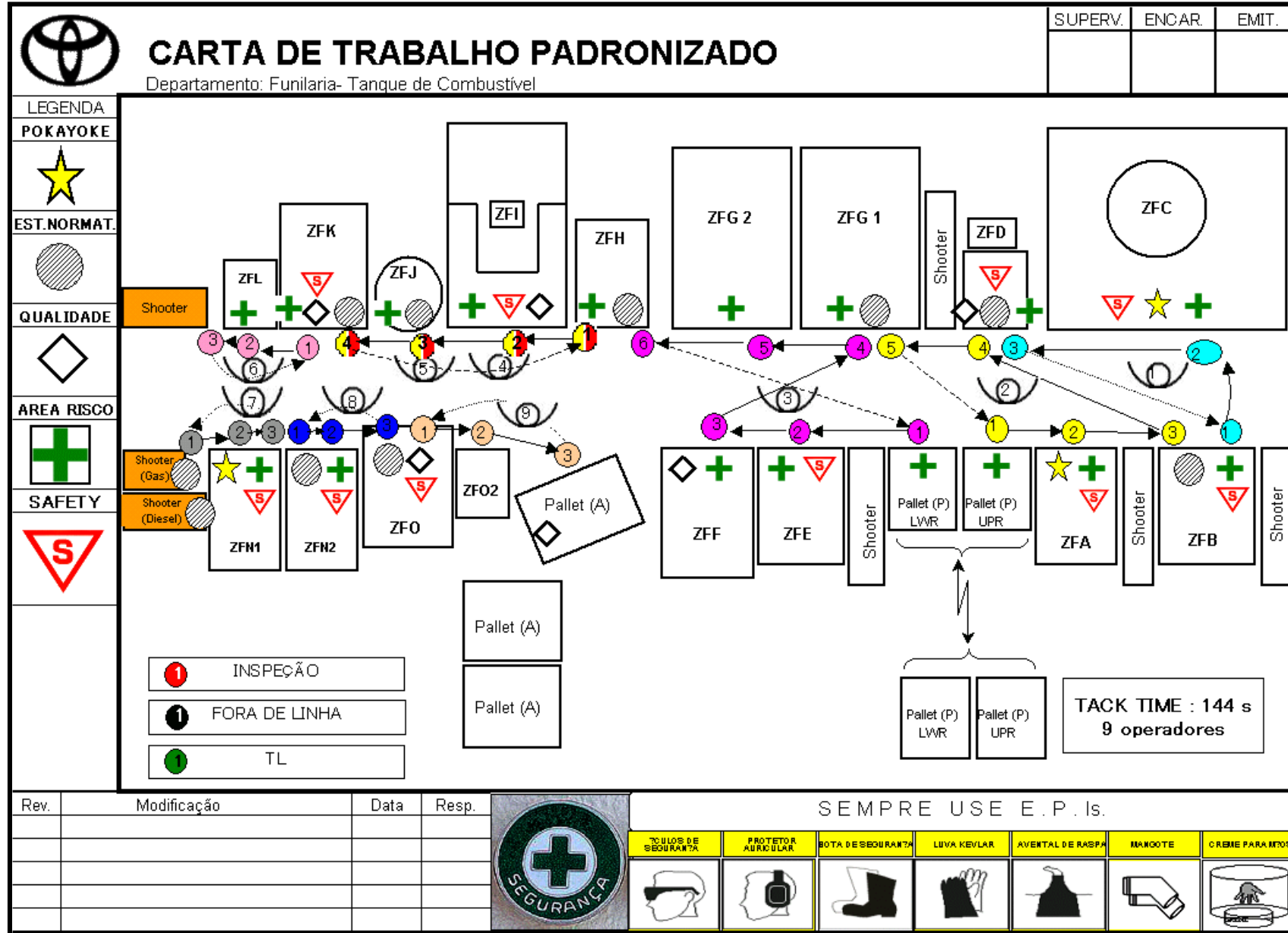
STANDARD WORK INSTRUCTION SHEET

 TOYOTA São Bernardo do Campo		NORMA OPERACIONAL		Número: NO-11125-001 Rev. 1 Data: 23/8/2005 Página: 1 de 1		
Título: MONTAGEM: OP. 10 - Colocação do Bujão e defletor de Óleo no Eixo Hilux.				Sílvio Salla Aprovado	Paula Ribeiro Verificado	Cristiana Silva Elaborado
ITEM	DESCRIÇÃO	PONTO-CHAVE	SEGURANÇA	FOTOS E FIGURAS		
1º	Retirar do escorregador a Carcaça do Eixo e colocar no Carrinho de Montagem (Foto 1) e pegar ficha de produção e colocar sobre o carrinho. (Foto 2)	Encostar o carrinho no escorregador para que destrave a Carcaça	Encaixar o carrinho no escorregador Puxar a Carcaça lentamente.			
2º	Encaixar o Carrinho nas canaletas da linha de Montagem e parar no 1º estágio. (Foto 3)	Seguir as faixas demarcadas no piso para a parada do carrinho.	Sempre empurrar o carrinho, evite puxar.			
3º	Girar o dispositivo do carrinho em 90º no sentido horário.	Acionar o pedal do carrinho para destravar o dispositivo.	Após o giro, garantir o travamento do dispositivo.			
4º	Pegar a Arruela (12157-10010) na bancada superior, colocar no Bujão do Dreno (90341-18057) e posicioná-los no região do Dreno na Carcaça. (Foto 4)	Colocar a Arruela com a parte reta voltada para a cabeça do Bujão.				
5º	Pegar a Apertadeira "Fuji" com a mão direita e apertar o bujão do dreno. (Foto 5)	Apertar até ouvir os estralos da parafusadeira.	Cuidado ao utilizar equipamentos pneumáticos.			
6º	Travar a Carcaça no dispositivo com a trava que fica embaixo da peça. (Foto 6)	Empurrar a Trava do canto para o centro do carrinho.	Não aplicar força excessiva na trava.			
7º	Pegar 1 Defletor do Óleo (42139-0K20) e com a mão esquerda encaixar dentro da carcaça na lateral direita até encaixar nos suportes laterais. (Foto 7)	-Apertar a porta do defletor para entrar com mais facilidade. -Apoiar a Carcaça com a mão direita durante a colocação da peça. (Foto 8)				
8º	Pegar 1 Defletor do Óleo (42139-0K20) e com a mão direita encaixar dentro da carcaça na lateral esquerda encaixar nos suportes laterais.	-Apertar a porta do defletor para entrar com mais facilidade. -Apoiar a Carcaça com a mão direita durante a colocação da peça.				
9º	Checar se os 2 Deflatores de óleo não ficaram soltos dos grampos. (Foto 9)	Puxar para o centro da Carcaça. (Foto 10)	Não aplicar força excessiva.			
10º	Apontar com a mão os dois prisioneiros grandes do diferencial (90116-08233) nos locais indicados (Foto 11)	Empurrar a Trava do canto para o centro do carrinho.	Não aplicar força excessiva na trava.			
11º	Conduzir o carrinho para a próxima operação.	Seguir as faixas demarcadas no piso para a parada do carrinho.	Sempre empurrar o carrinho, evite puxar.			
OBS.	Anexo A: FOLHA DIARIA DE CHECAGEM DO TORQUE DA PEÇA BUJÃO DO DRENO Anexo B: FOLHA DIARIA DE CHECAGEM DO TORQUIMETRO DO BUJÃO DO DRENO Anotar o valor do torque da 1ª peça após início da produção, 1ª peça após almoço/jantar e 1ª peça após o intervalo da tarde/madrugada. Marcar um ponto no grafico no local correspondente ao valor do torque.					
	TERMINAR TODAS AS SEQUENCIAS DE OPERAÇÕES ANTES DE PARAR PARA QUALQUER INTERVALO (Café, Almoço/Jantar, Banheiro, Final de expediente).					
SEMPRE USE E.P.Ls						
						
						
Rev. 0	Emissão Inicial			Data: 9/6/2004		
Rev. 1	Melhoria no detalhamento das descrições das atividades / Alteração no número da Norma.			Data: 23/8/2005		

STANDARD WORK COMBINATION TABLE



STANDARDIZED WORK CHART



STANDARD WORK INSTRUCTION SHEET

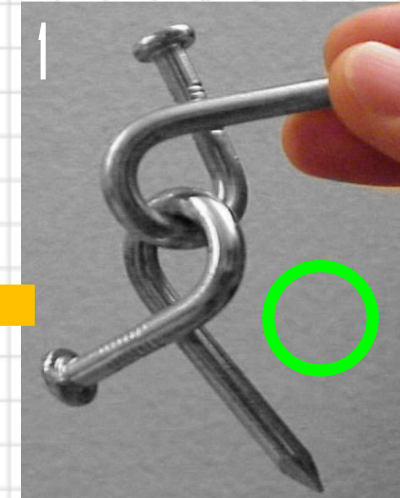


PROCESS NAME:
Separation of Nails

DOC: SWI-SaN
REV: 2023_1

1 / 1

1 Hold end of the nail with **RIGHT HAND**



2 Hold the other nail with **LEFT hand**



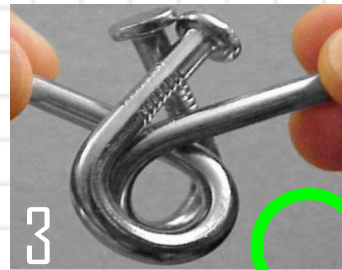
END OF THE NAIL

NOT HEAD OF THE NAIL

3 Twist: **LEFT head OVER** right head

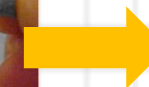
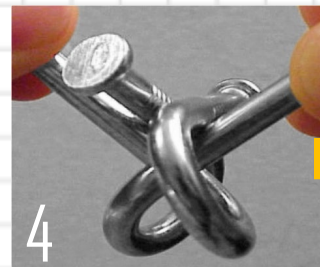


NOT RIGHT HEAD OVER LEFT



4, 5, 6...

Keep twisting by moving the **LEFT NAIL**



= STANDARD



= CONTROL ITEMS



= SAFETY ITEMS



= VISUAL CHECKS

EFFECTIVE DATE:
ORIGINATION DATE:

23-04-17
20-07-28

OWNER:
APPROVER:

F. ESTRADA
S. OBARA

STANDARD WORK INSTRUCTION SHEET

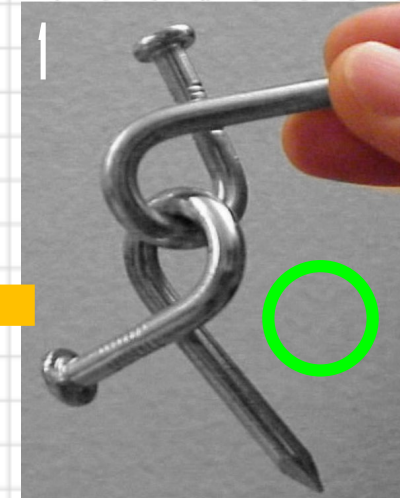


PROCESS NAME:
Separation of Nails

DOC: SWI-SaN
REV: 2023_1

1 / 1

1 Hold end of the nail with **RIGHT HAND**



END OF THE NAIL

NOT HEAD OF THE NAIL

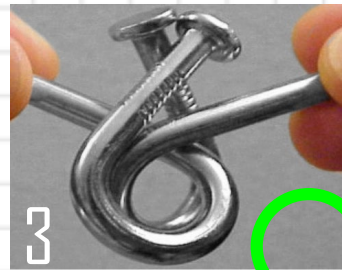
2 Hold the other nail with **LEFT hand**



3 Twist: **LEFT head OVER** right head

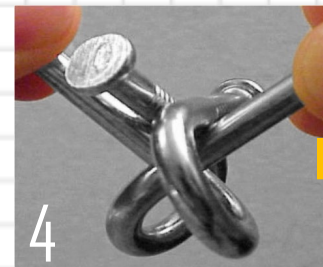


NOT RIGHT HEAD OVER LEFT



4, 5, 6...

Keep twisting by moving the **LEFT NAIL**



= STANDARD



= CONTROL ITEMS



= SAFETY ITEMS



= VISUAL CHECKS

EFFECTIVE DATE: 23-04-17
ORIGINATION DATE: 20-07-28

OWNER: F. ESTRADA
APPROVER: S. OBARA

STANDARD WORK INSTRUCTION SHEET



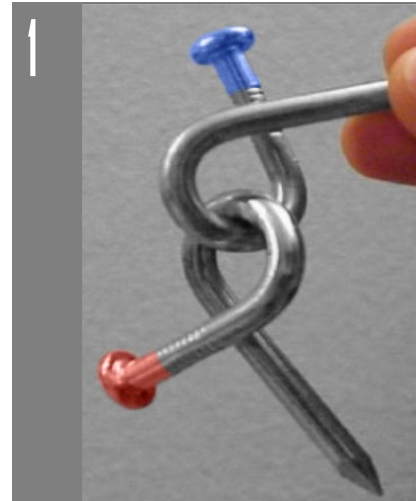
PROCESS NAME:
Separation of Nails

DOC: SWI-SaN
REV: 2023_1

1 / 1

1 | Hold end of blue nail
with **RIGHT HAND**

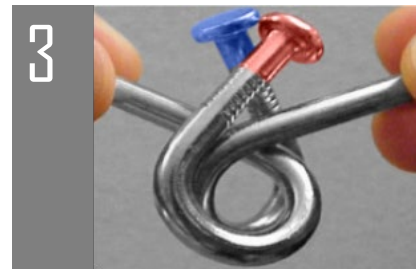
*END OF
THE NAIL*



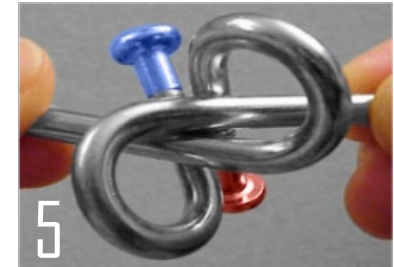
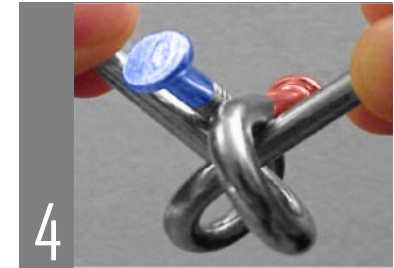
2 | Hold red nail
with **LEFT** hand



3 | Twist: **RED** head
OVER blue head



4 | Keep twisting
5 | by moving
6 | the **RED** NAIL



= STANDARD



= CONTROL ITEMS



= SAFETY ITEMS



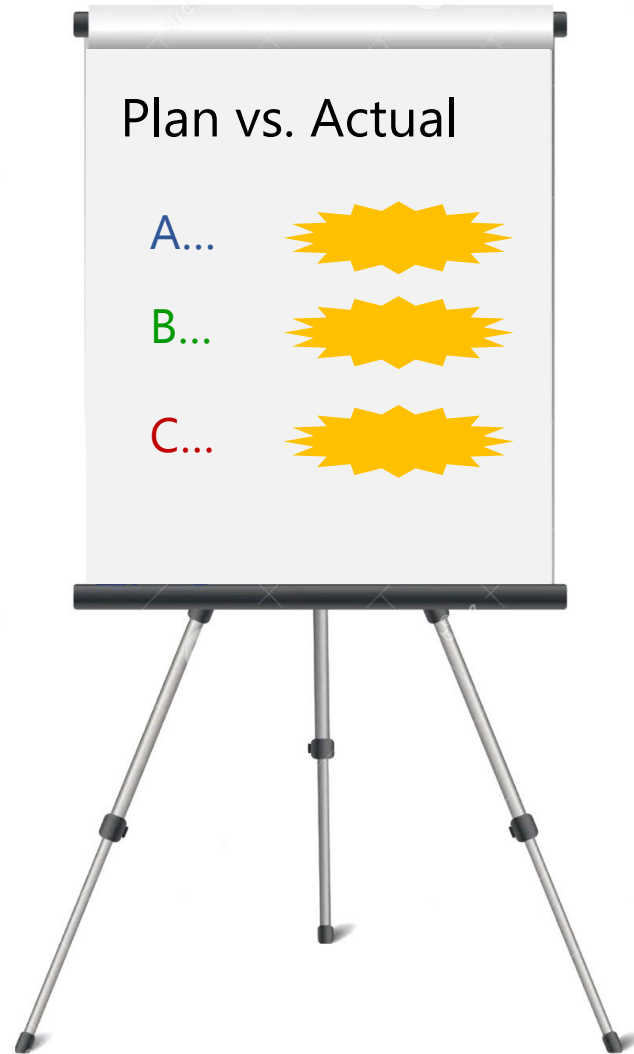
= VISUAL CHECKS

EFFECTIVE DATE: 23-04-17
ORIGINATION DATE: 20-07-28

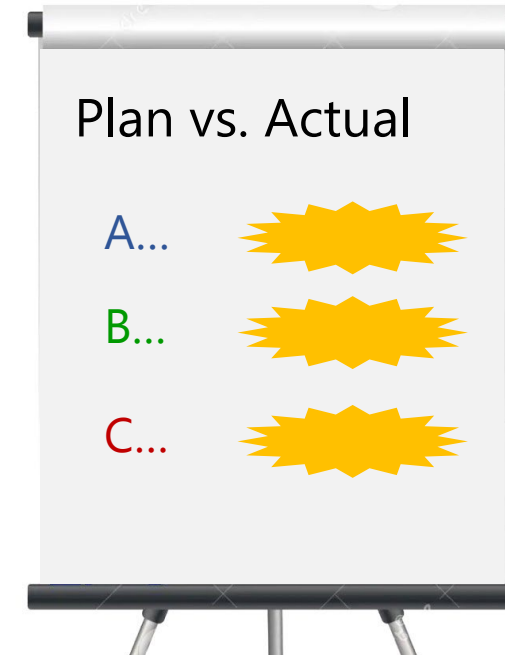
OWNER: F. ESTRADA
APPROVER: S. OBARA

KAIZEN TEIAN

What Improvements can be made?



What about now?



What improvements can be made once we have standards? How are they different now?



"No standard, no Kaizen"

- Taiichi Ohno.

改善事例

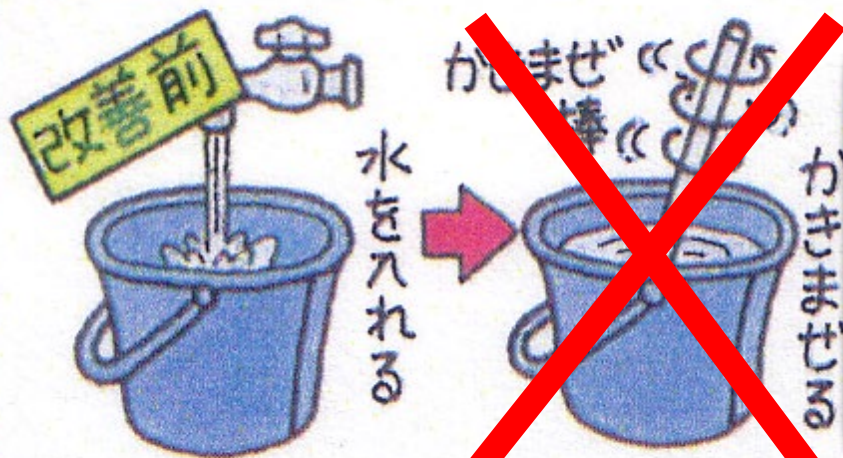
切削液希釈作業の効率化

●改善前

切削液は、水で薄めてから使用していた。今までは、水を入れてから、棒でかき混ぜていた。

●改善後

水道のホースの先にパイプを取り付けて、その先端に小さな穴を開けた。この穴から水が出るようにした。



●効果

水を出すと同時に、水の供給と液の攪拌が一度にできるようになった。

改善事例

バケツに使用量の目印をつける

●改善前

「酸洗浄」を行う時は、液体である酸を毎回「計り」で量ってから使用していた。

●改善後

液を運ぶバケツの内側に直接、使用量を書いたテープを貼った。

●効果

イチイチ計りに乗せて、量る手間がなくなった。



改善事例

切削液希釈作業の効率化

●改善前

切削液は、水で薄めてから使用していた。今までは、水を入れてから、棒でかき混ぜていた。

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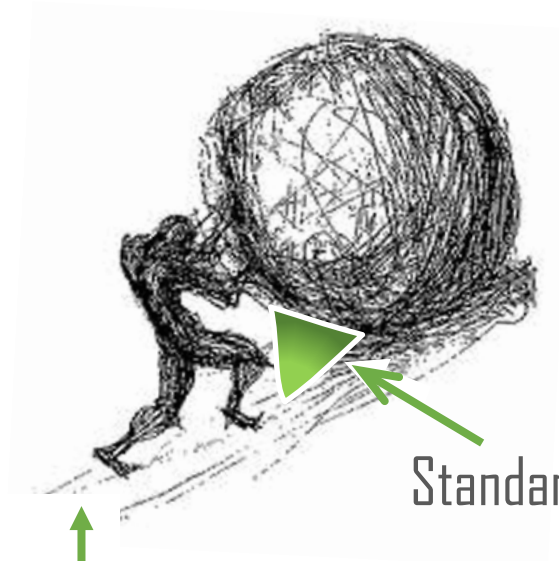
EVERYDAY KAIZEN

Once we develop our Kaizen muscles we can do some big kaizen and maintain the gains

INNOVATION

Performance

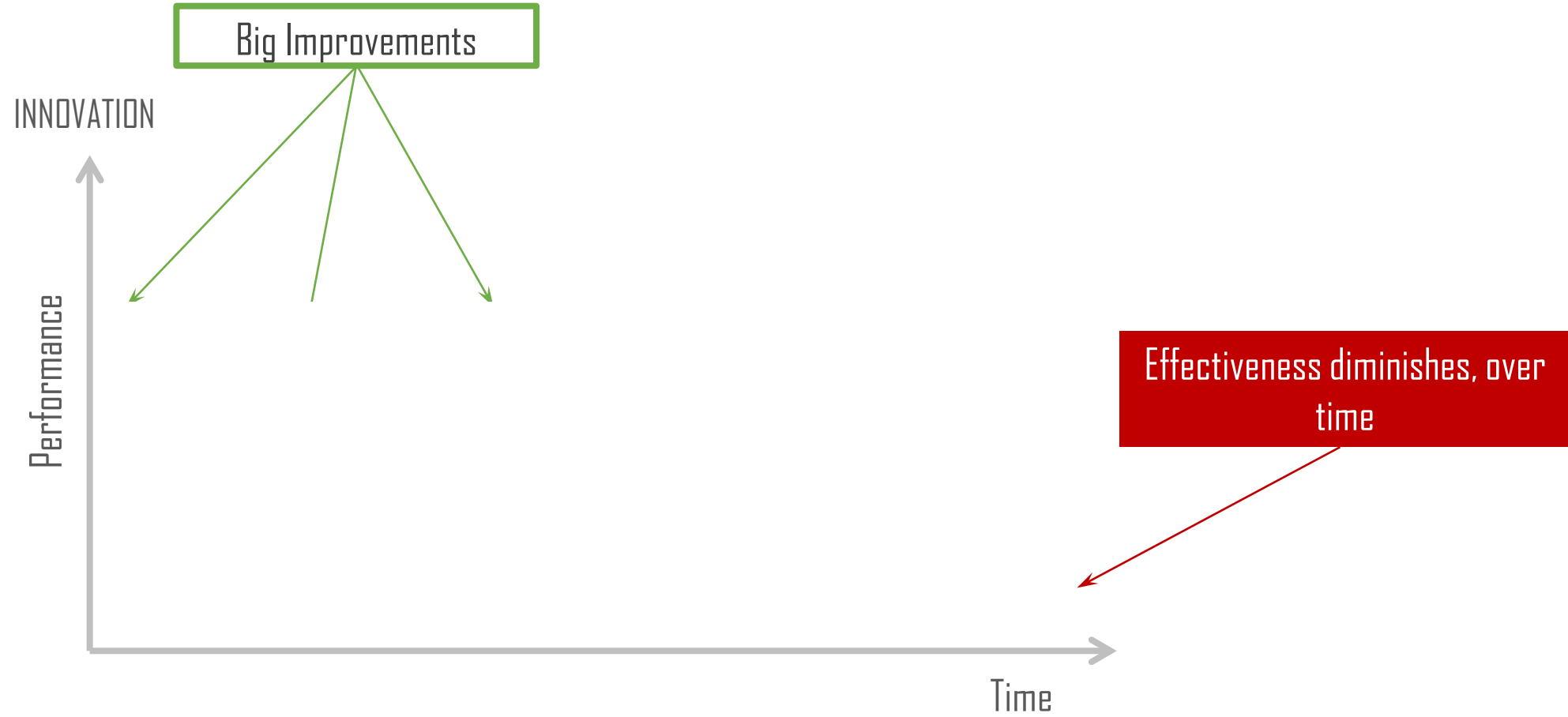
Time



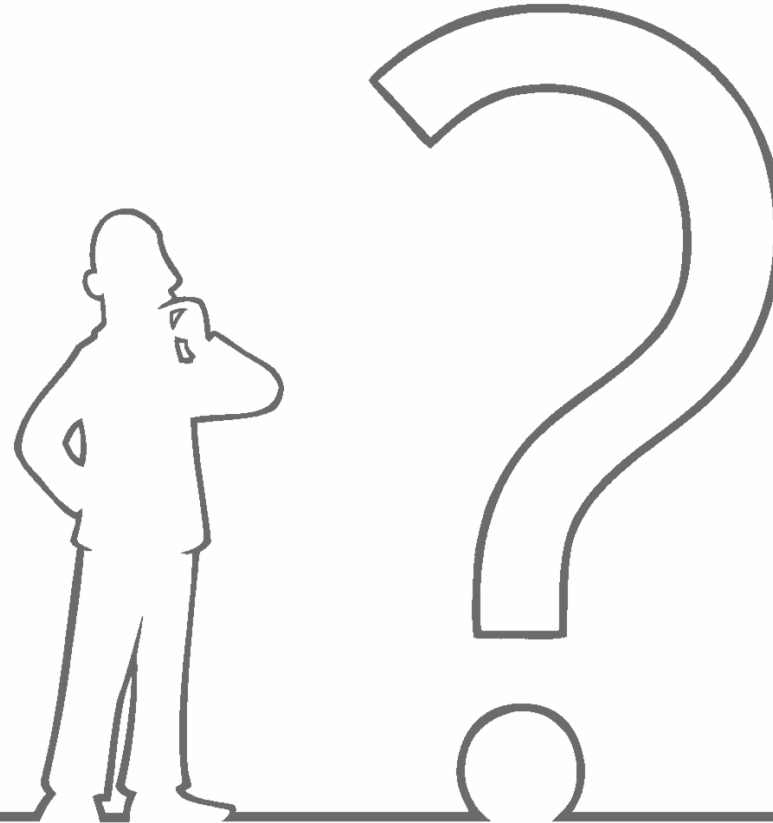
Standardization

Small Improvements
become BIG gains over
time

EVENT DRIVEN KAIZEN



Why is it more difficult to maintain the gains with big Kaizen Events??





YOUR TURN!

The Next Scenario Needs a Kaizen.

Your Job is to Do the Kaizen and Document it.

My Kaizen

1A. PROBLEM

1B. CAUSE(S)

2. SOLUTION

3. STANDARDIZATION



Document the Problem and its Cause(s)

Defining the way to

My Kaizen

1A. PROBLEM

1B. CAUSE(S)

2. SOLUTION

3. STANDARDIZATION

1

Document the Problem and its Cause(s)

2

Propose a Simple and Economical Solution

3. STANDARDIZATION

My Kaizen

1A. PROBLEM

2. SOLUTION

1B. CAUSE(S)

3. STANDARDIZATION

1

Document the Problem and its Cause(s)

2

Propose a Simple and Economical Solution

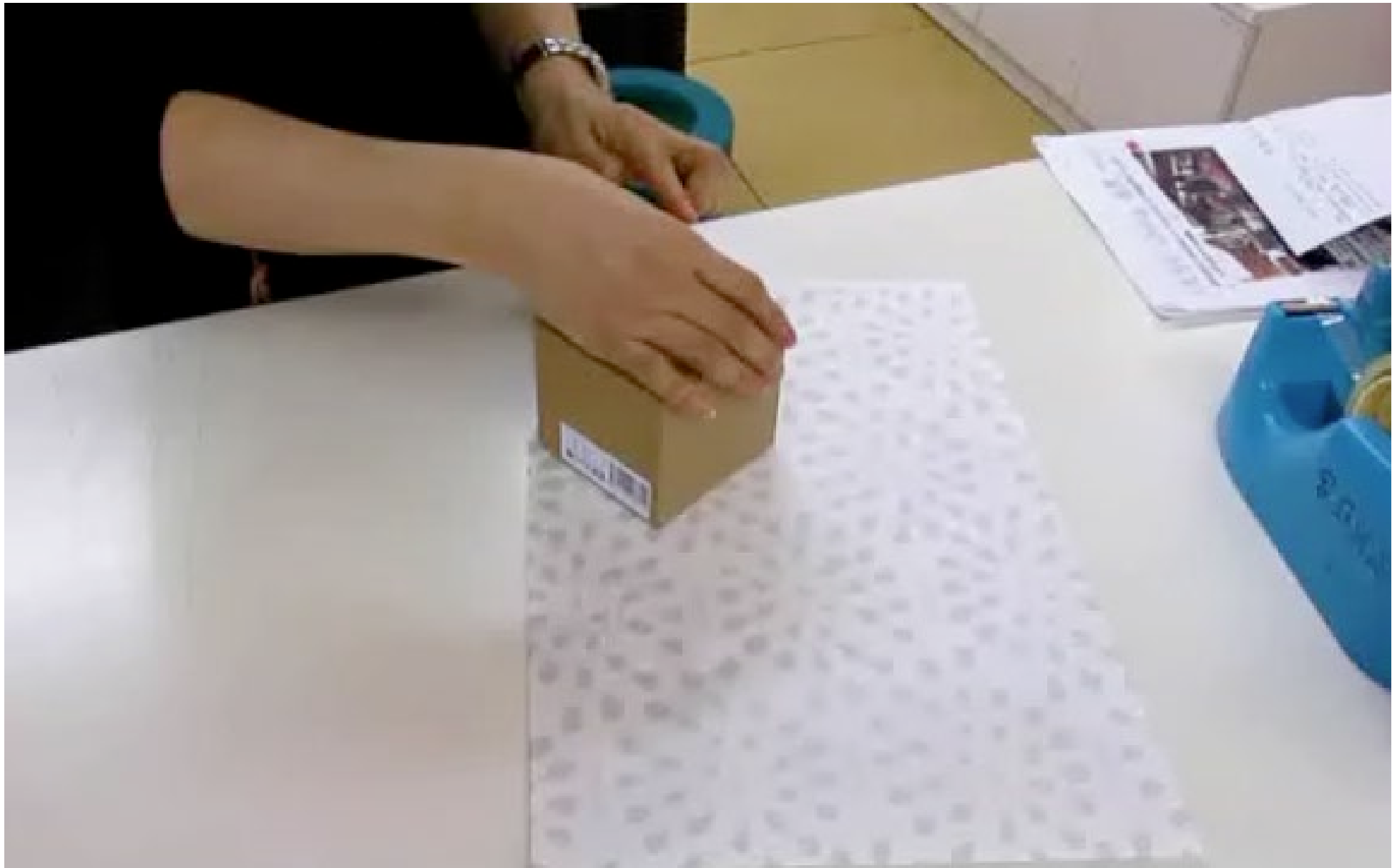
3

Define the way to Standardize your Solution

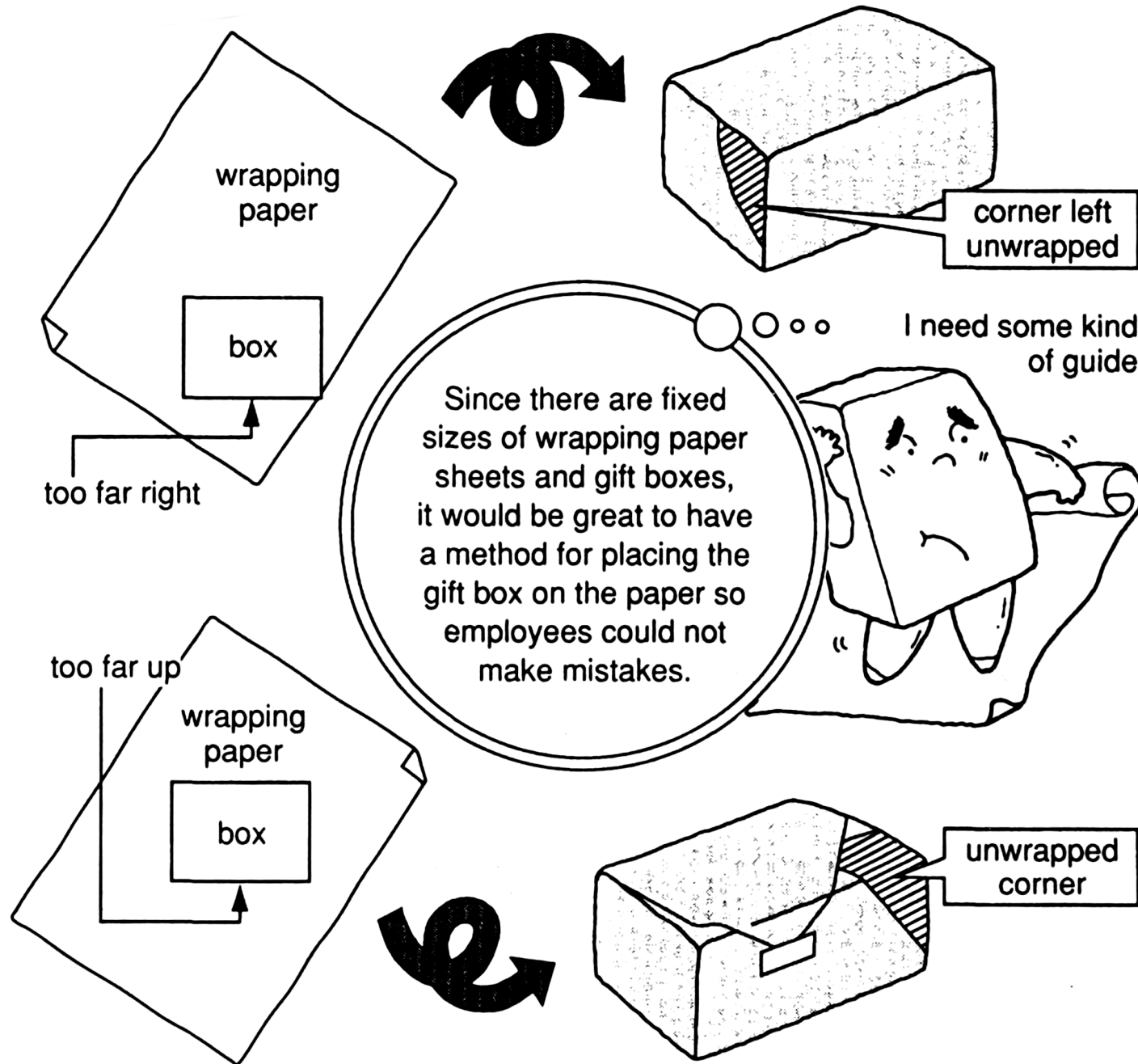


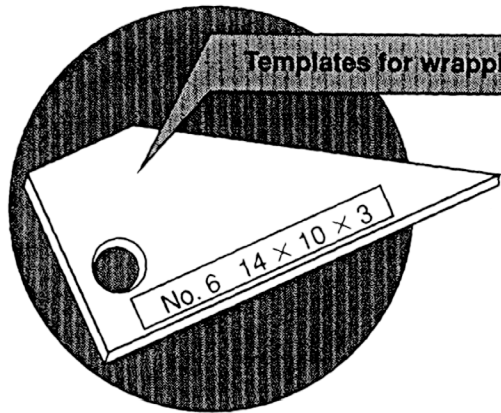
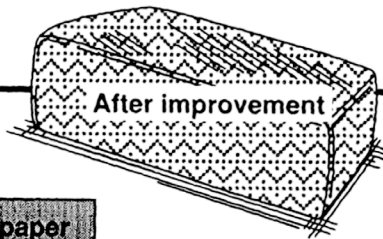
The Problem





The Opportunity

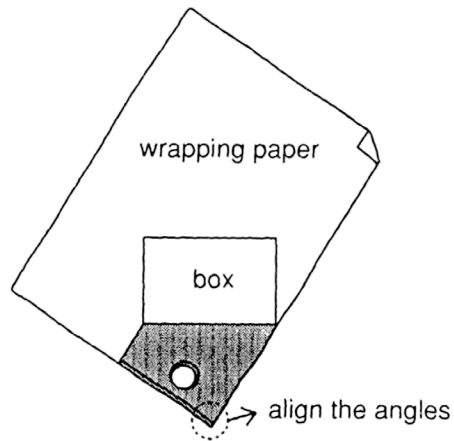




Templates for wrapping paper

a template of light, sturdy plastic

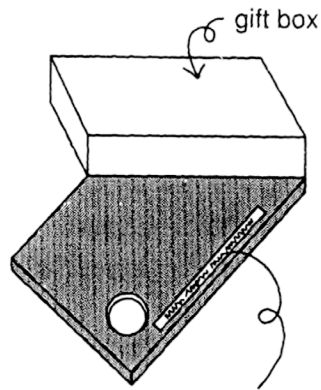
The employee only has to match the template to the box.



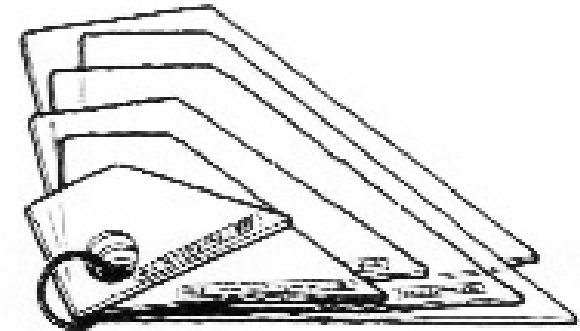
Effect

- Employees no longer make a mistake when determining the size of the wrapping paper, so that anybody can now wrap gifts neatly and quickly
- Customer waiting times were shortened.

- 1 Match one of the templates to the long side of the gift box.



- 2 Use the template number to select the correct size sheet of wrapping paper.
- 3 Position the right angle of the template against the bottom right corner of the wrapping paper.
- 4 Align the length of the box with the diagonal side of the template.
- 5 Once the box is positioned, lift away the template.
- 6 Wrap the box, making sure it stays in the correct position. The box can now be wrapped neatly.



Multiple Countermeasures for Multiple Causes

IS THIS A KAIZEN?

1

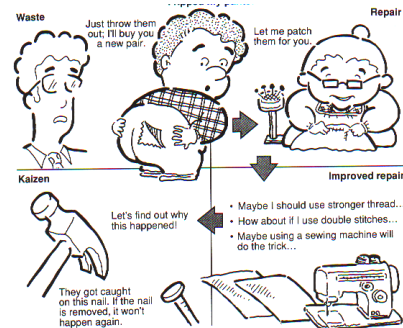
Confirm that it addressed **AT LEAST ONE** of these points:

Problem Type <input checked="" type="checkbox"/> Check all that apply	<input type="checkbox"/> SAFETY	WASTE:	<input type="checkbox"/> <i>Waiting</i>	<input type="checkbox"/> <i>Correction</i>
	<input type="checkbox"/> QUALITY	<input type="checkbox"/> <i>Overproduction</i>	<input type="checkbox"/> <i>Motion</i>	<input type="checkbox"/> <i>Ideas not used</i>
	<input type="checkbox"/> QUALITY	<input type="checkbox"/> <i>Inventory</i>	<input type="checkbox"/> <i>Overprocessing</i>	<input type="checkbox"/> <i>Conveyance</i>
	Kaizen = improvement + standardization		Kaizen deals with root causes	

A Kaizen must address Safety, Quality or Waste. If you can quantify the benefits, chances are you improved the issue.

2

Confirm that it addressed the **ROOT-CAUSE:**



A Kaizen **MUST** go after the real causes of the problem. Superficial remedies result in unpredictable results.

3

Confirm that it's **STANDARDIZED:**



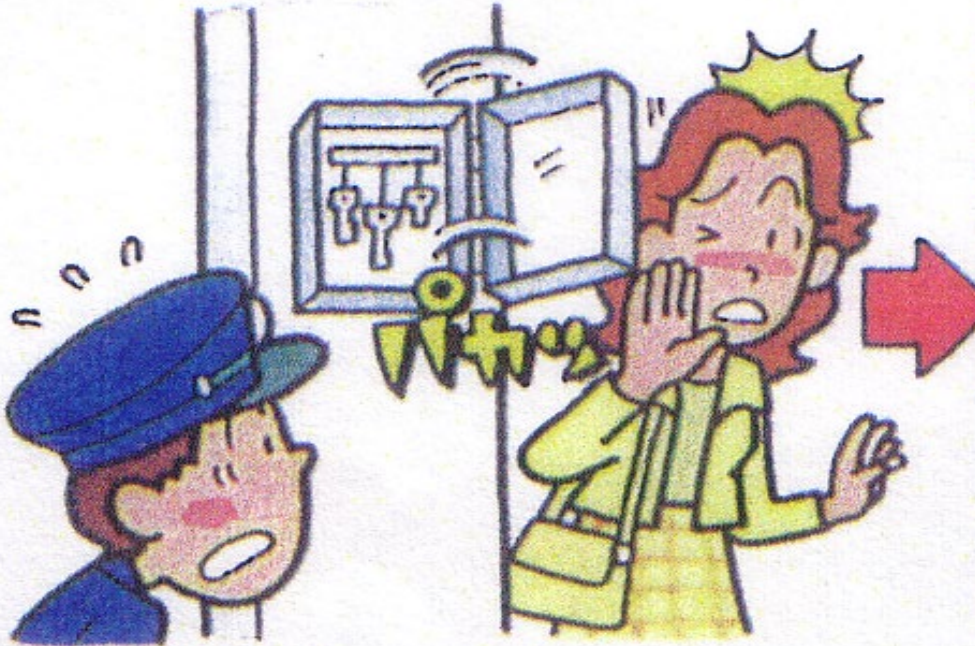
A Kaizen will not roll-back with time. It will be sustained through standardization techniques.

改善事例

キーボックスを斜めにつける

●改善前

キーボックスの扉の閉め忘れが多く、通行の邪魔になっていた。



●改善後

蝶番側を上にして、キーボックスを斜めに取り付けた。

●効果

扉は自重で閉まるようになり、閉め忘れという状態はなくなった。