



Effective Vaccine Management: Why is progress so slow?

Webinar
for Supply Chain
Management Officers

4 May 2022

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Objectives of the presentation

At the end of this exchange, participants will be able to:

General objective

Draw lessons from the 2010-2019 ten-year experience of conducting EVM evaluations in order to improve the implementation of improvement plans.

1

Explain the slow and uneven progress in implementing the EVM improvement plans developed as a result of the evaluations

2

Explain the sociological reasons for this slow progress

3

Explain the managerial reasons for this slow progress

4

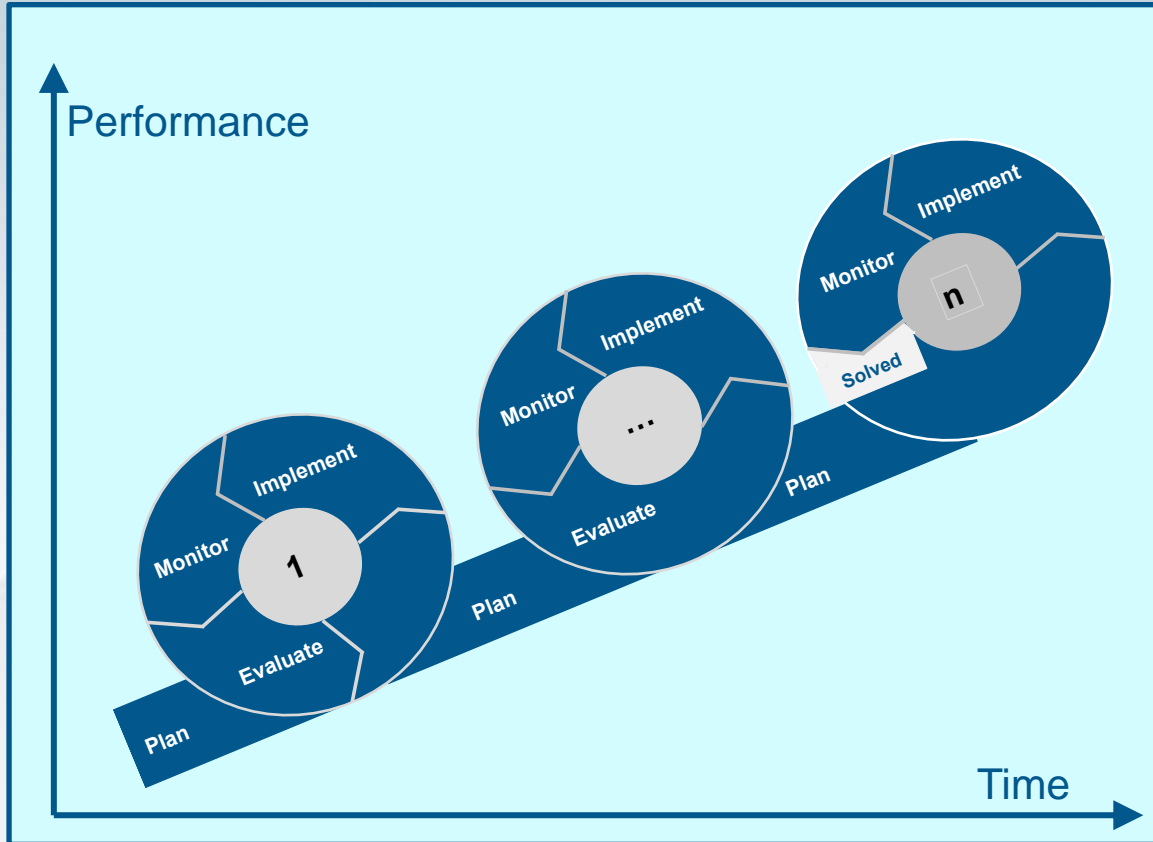
Describe potential pathways to faster progress

5

Launch a call to EPI Program Managers and Logisticians

SECTION 1: INTRODUCTION

“We tried everything ...”



Continuous improvement cycle

The results achieved and lessons learned from the previous cycle are assessed and used to adjust the planning phase of the next cycle. And so on until the final goal is achieved.

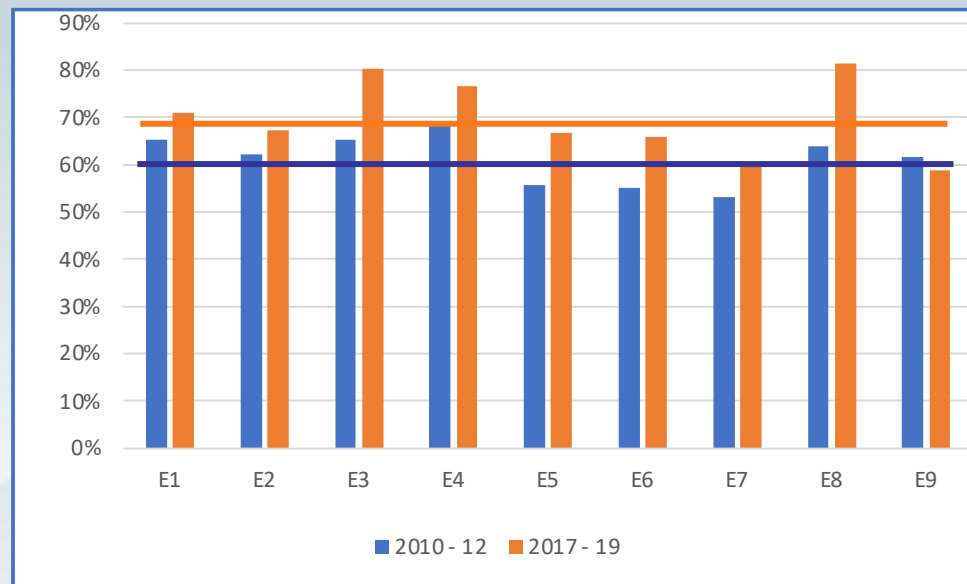
- EPI: one of the oldest public health programmes:
 - Born with the "Universal Childhood Vaccination" (UCI) in the 70s with generous funding ("One Child – One Vial")
 - Many well-funded initiatives: MNTE, PEI, measles and yellow fever control, GAVI, etc.
- In 2009, WHO and UNICEF launched the Effective Vaccine Management (EVM) initiative:
 - Since then, 195 EVM assessments have been carried out in 93 countries.
 - Each evaluation was followed by an improvement plan.
- The EVM initiative initiates a process of continuous improvement as illustrated in the figure opposite.

“We tried everything ...”

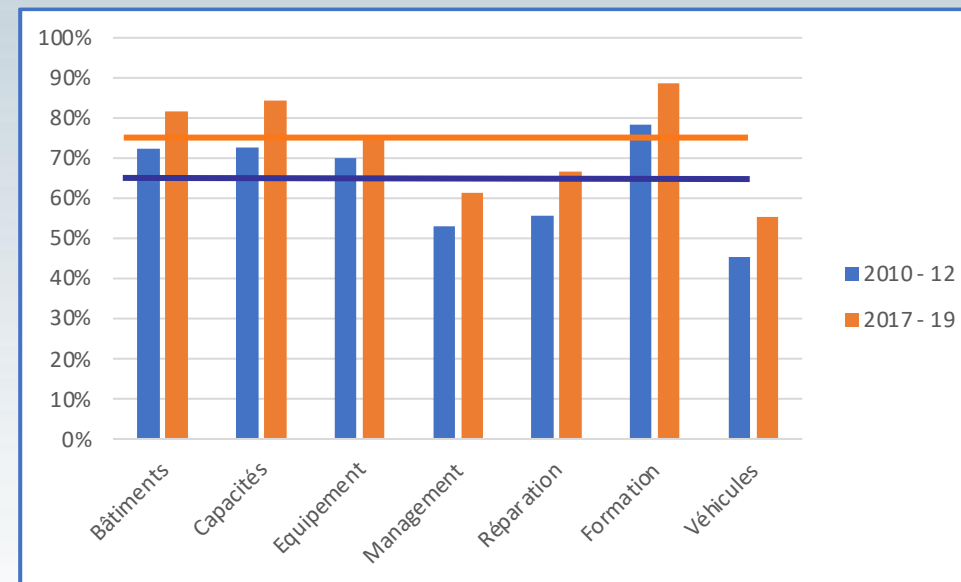
- With the improvement plans, extensive equipment and training programs have taken place in all areas and in all countries, especially in logistics:
 - Supply of cold rooms, refrigerators, vehicles (trucks, 4x4 cars, motorcycles, etc.), incinerators, computers, etc.
 - Academic and in-service training sessions, mentoring, coaching, etc.
- The amounts committed by GAVI alone exceed tens of million USD
- Nevertheless, EVM assessments always reveal inadequacies, failures and even serious faults.
- What are the reasons for this?
- Let's see the analysis below of the performance revealed by the various evaluations of the EVM in two periods: before the improvement plans (2010-2012) and after their implementation (2017-2019).

Progress between 2010-2012 and 2017-2019

By criteria



Par categories



Results of 195 EVM assessments conducted in 2009 – 2019 worldwide

(based on data from the WHO Global Analysis of EVM Assessments)

Slight progress between the periods before & after the implementation of improvement plans:

- **For criteria** : the geometric mean increases from 61% to 69%, i.e. by 8 points
- **For categories** : the geometric mean increases from 66% to 76%, i.e. by 10 points.

Progress between 2010-2012 and 2017-2019

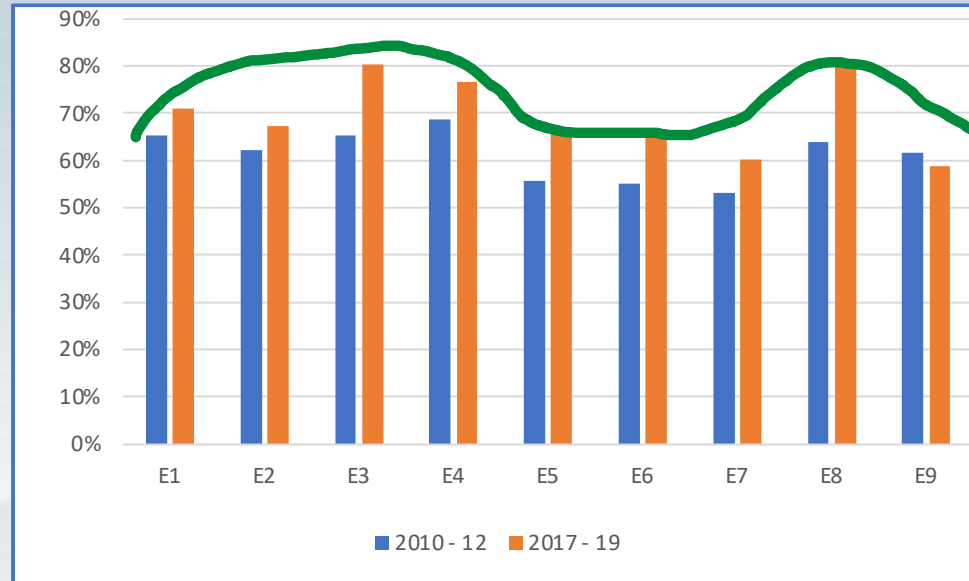


- **High scores** : Criteria and categories of "inputs"
 - Related to infrastructure, equipment and training (E3, E4, E8 / Building, Capacity, Equipment, Training)
- **Low score** : Criteria & categories of implementation "processes"
 - Related to management (in which the human factor is involved) (E5, E6, E7, E9 / Management, Repairs / Maintenance).

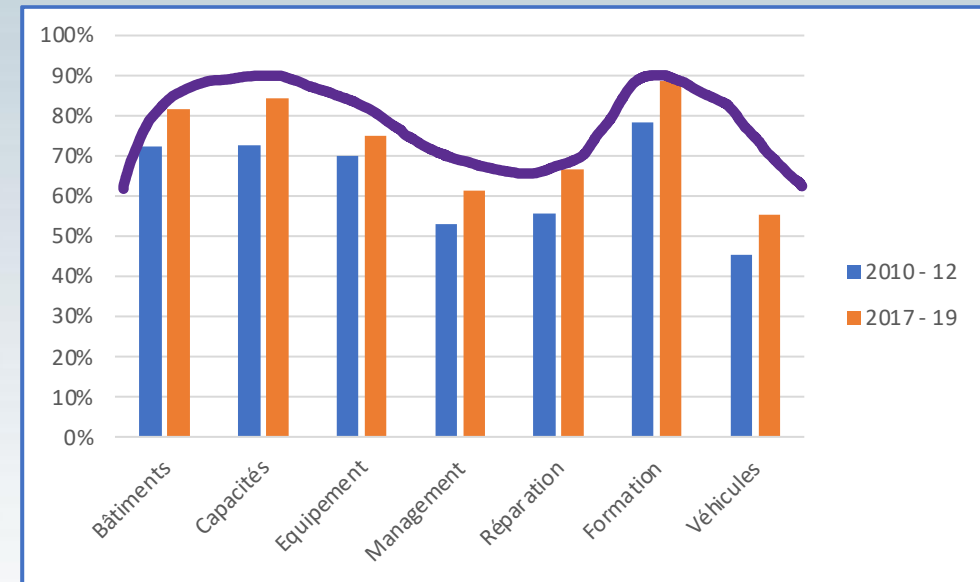
- **Progress, but no catching up** :
 - Lower in 2010-2012, E5, E6, E7 and E9 criteria remain lower in 2017-2019
 - Lower in 2010-2012, the "Management" and "Repair" categories remain lower in 2017-2019.
- **Gaps are widening:**
 - The E3, E4 and E8 criteria, higher in 2010-2012, progressed more than the others in 2017-2019.
 - The categories "Building", "Capacity" and "Training" higher, in 2010-2012, widened the gap in 2017-19 with the others.

Performance Profile

By criteria



By categories



Results of 195 EVM assessments conducted in 2009 – 2019 worldwide
 (based on data from the WHO Global Analysis of EVM Assessments)

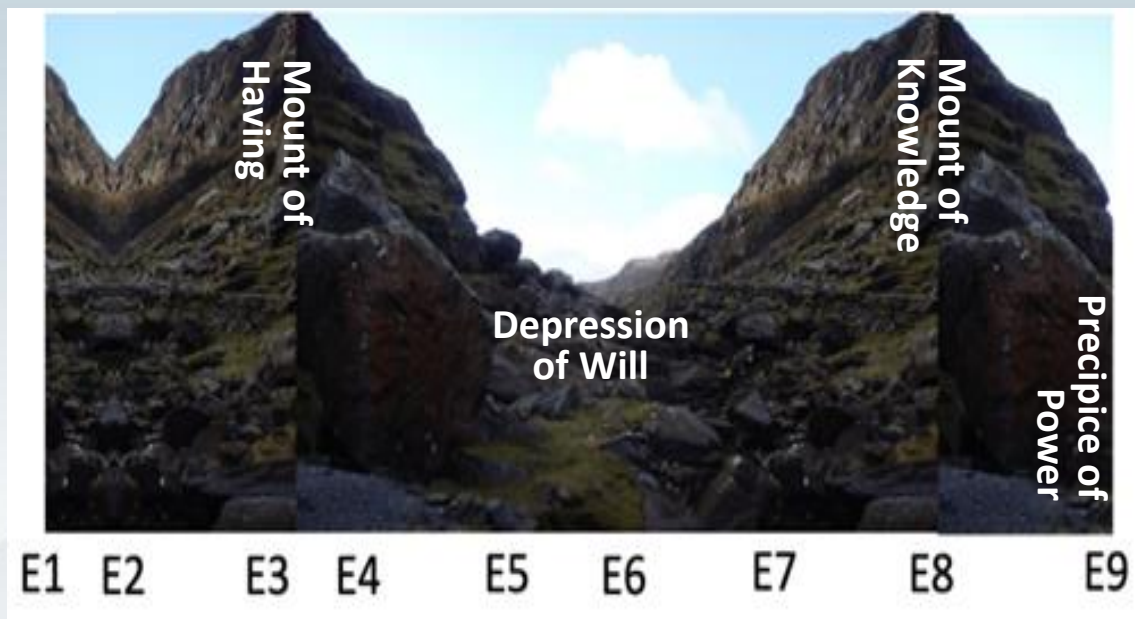
By taking an "artistic" look at the figures above, we can see that the curves draw :

- **Two mountains:** corresponding to the criteria and categories of inputs
- **A depression:** corresponding to the criteria and categories of processes
- **A precipice:** corresponding to criterion E9 (Support functions)*

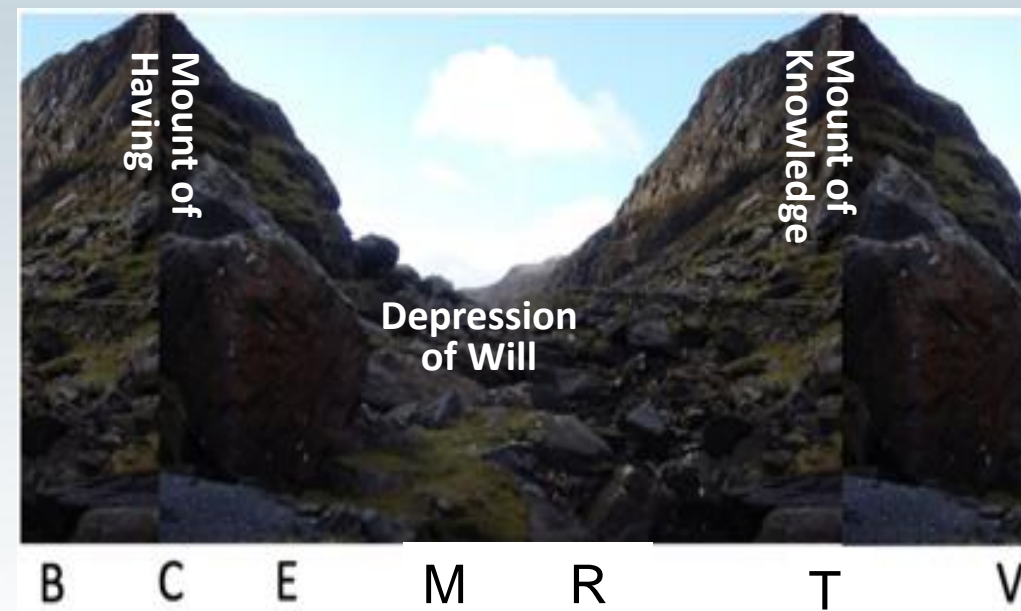
* We do not take into account the category "Vehicles" always very low because PPS very often lack vehicles in all countries

Analogy for simple illustration

By criteria



By categories



On the Criteria graph, two "mountains":

- 1st Mountain : Mountain of "Having"
- 2nd Mountain : Mountain of "Knowing"
- Depression : Depression of "Will"
- Precipice : Precipice of "Power"

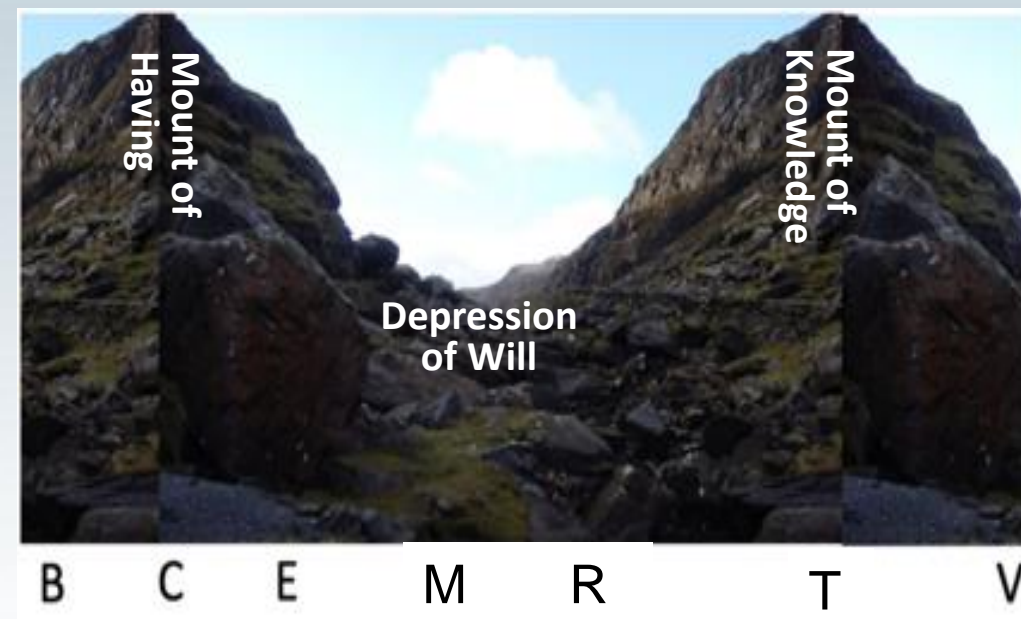
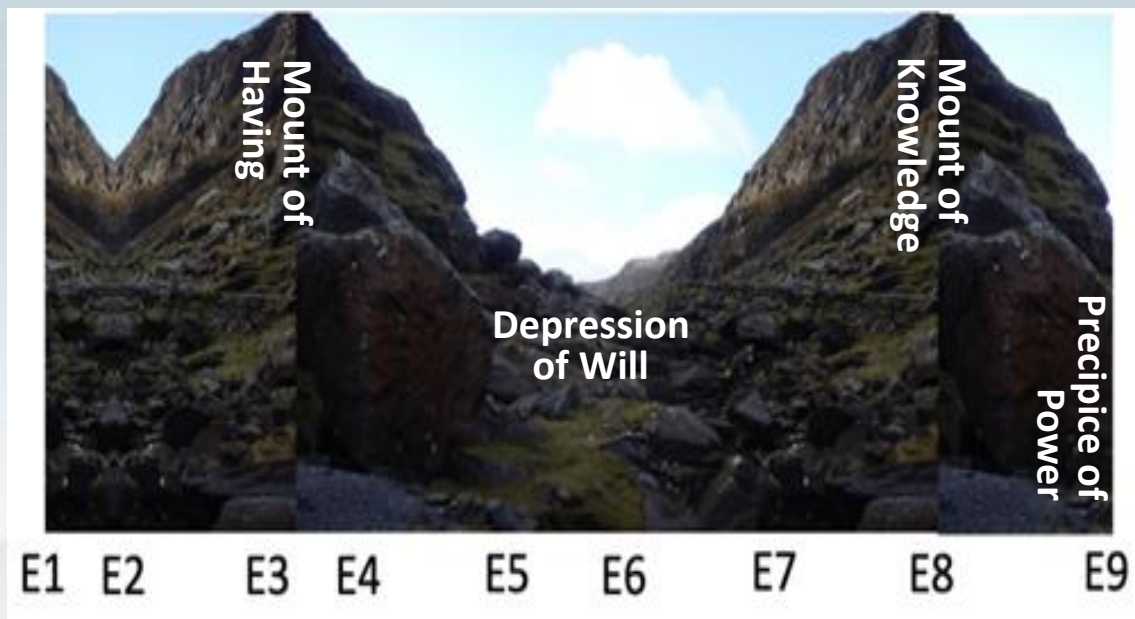
Ditto for Categories:

- 1st Mountain : Mountain of "Having"
- 2nd Mountain : Mountain of "Knowing"
- Dépression : Depression of "Will"
- Precipice : Vehicles

Analogie pour simple illustration

Par critères

By categories



On the Criteria graph, two "mountains":

- 1st mount
 - 2nd mount
 - Depression
 - Precipice
- } "Inputs" – "Investments"
- } "Processes" – Implementation
"Operations"

Ditto for Categories:

- 1st mount
 - 2nd mount
 - Depression
- } "Inputs" – "Investments"
- } "Processes" – Implementation
"Operations"

INPUTS & PROCESSES

***Inputs* =
direct results of
investments**

They answer the question "HOW MANY" :

- How many refrigerators or vehicles were provided?
- How many buildings have been built or expanded?
- How many training sessions have been organized, how many agents have been trained?

***Processes* =
implementation
operations**

They answer the question "HOW" :

- How is maintenance organized,
- How are vaccine stocks managed,
- How support functions work?

They involve HUMAN FACTOR!

Depression & Precipice

Depression

- Scores for E5, E6 and E7 criteria, and "Management" and "Repair" categories are low.
- The "means" are available via the "Inputs": would there not be a deficit of will?
- Hence the name "Depression of Will".

Precipice

- Criterion E9 relates to Support Functions, including supervision by superiors
- Its score was low in 2010 -12 and declined in 2017 -19
- This failure is called the "Precipice of Power."

Wouldn't these 2 recessions explain the slow progress in EVM?

We would like to understand!

- For 10 years (2010 to 2019), EVM assessments were conducted.
- Improvement plans were developed:
 - Many infrastructures have been built,
 - Equipment was provided in large numbers,
 - Training was provided to thousands of officers.
- Despite all these efforts:
 - Progress is slow for all criteria and
 - The gap between "input" and "process" criteria and categories is increasing.

- How can this paradoxical situation be explained?
- We will explore two explanations:
 - A **sociological reason** with the "Broken Glass Theory".
 - A **managerial reason** related to the deficit in support functions' implementation, including supervision.

SECTION 2: SOCIOLOGICAL EXPLANATIONS (ANALOGY WITH SCM → STAY TUNED!)

Context and concepts of the study on « The Broken Window Theory »

**Two identic cars abandoned in the street:
Same make, model and color**

**One in the Bronx, a poor and troubled
neighborhood of New York City.**



**One in Palo Alto, a rich and peaceful
neighborhood in California.**



In the Bronx

The car began to be vandalized and, within a few hours, it lost:

- Its engine, mirrors, radio, tires, etc.
- Everything that was usable was taken away.
- Everything that was not usable was destroyed.



At Palo Alto

Nothing happens:

- For several days, nobody touches the parked car!



What is the explanation?



Poverty!
Poverty!
Poverty!

- **Poverty:** invoked first and foremost as the cause of the crimes, therefore of the vandalization of the car parked in the Bronx.
- **Opinion shared** by the most conservative ideological positions (both right and left).

And yet, in Palo Alto ...

After a few days, the researchers themselves broke a window of the car parked in Palo Alto, California's rich and uneventful neighborhood. Then they observed.



Result:

In a few hours:

- Triggering of the same process in the Bronx.
- Theft, vandalism and violence on the vehicle.
- Car reduced to the same state as the one in the poor neighborhood.

What explanations now?

Why is the broken window of a car parked in a rich and safe neighborhood capable of triggering a whole criminal process?



Psychology



Social relations



Human behavior

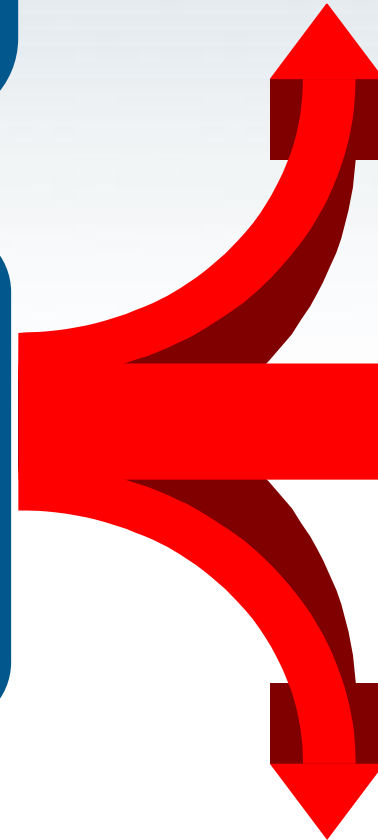
Why is the broken window of a car parked in a rich and safe neighborhood capable of triggering a whole criminal process?



Poverty is exonerated!



Where are the causes?



Let's take a closer look



Broken window of an abandoned car

Broken Window Theory:
“Crime is higher in areas with the highest levels of neglect, dirt and disorder.”

Idea of Decadence, Disinterest & Neglect

Breaking with the codes

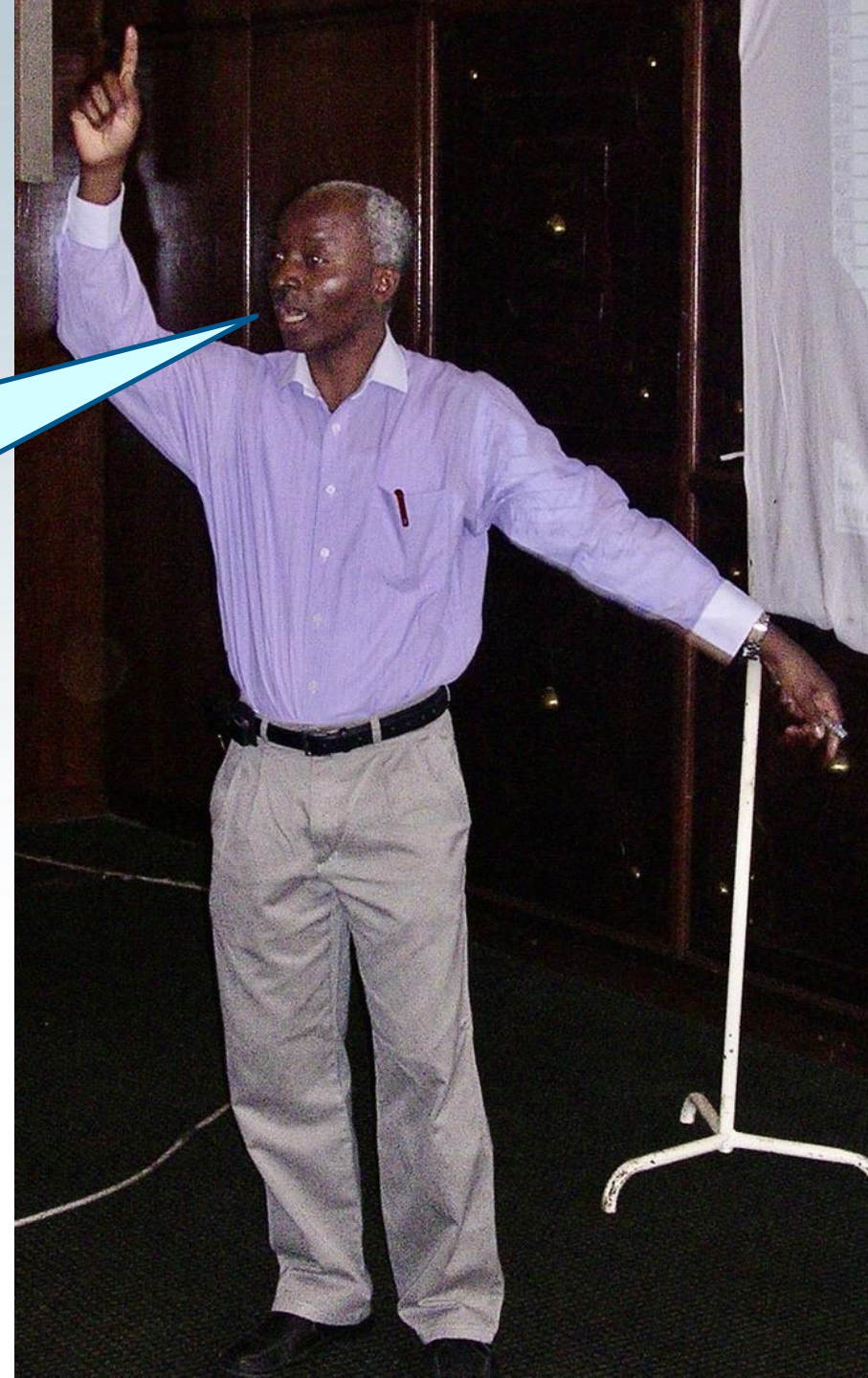
Sense of absence of laws, norms and rules



Let's beware ...

Faced with abandonment and disorder, many social ills develop and the environment deteriorates!

Numerous examples are there!



In the community ... (1/2)

When a community shows signs of deterioration, with no one interested in avoiding it, crime will develop.

If a window is broken in a building and no one repairs it, soon all the other windows will be broken too!

If parks and other public spaces deteriorate without anyone taking steps to prevent it, they will be abandoned by the population, and gradually occupied by criminals!



In the community ... (2/2)

When a community shows signs of deterioration, with no one interested in avoiding it, crime will develop.

If "small offences" (parking in a prohibited place, exceeding the speed limit, disregarding a red light) are not punished, major offences will begin to develop, followed by even more serious crimes.



In the family ...

A dirty, messy, careless house (decrepit paint, walls in bad condition, poor or no cleaning, inappropriate language, etc.) results in:

- **Decreased self-esteem for each individual in the family**
- **Lack of respect between family members**
- **Poor relations between family and society.**



In the society ...

Lack of respect

- For societal values,
- From the society to itself and to the authorities and vice versa,

leads to:

- Corruption at all levels,
- Lack of education and training
- Lack of opportunities for youth.

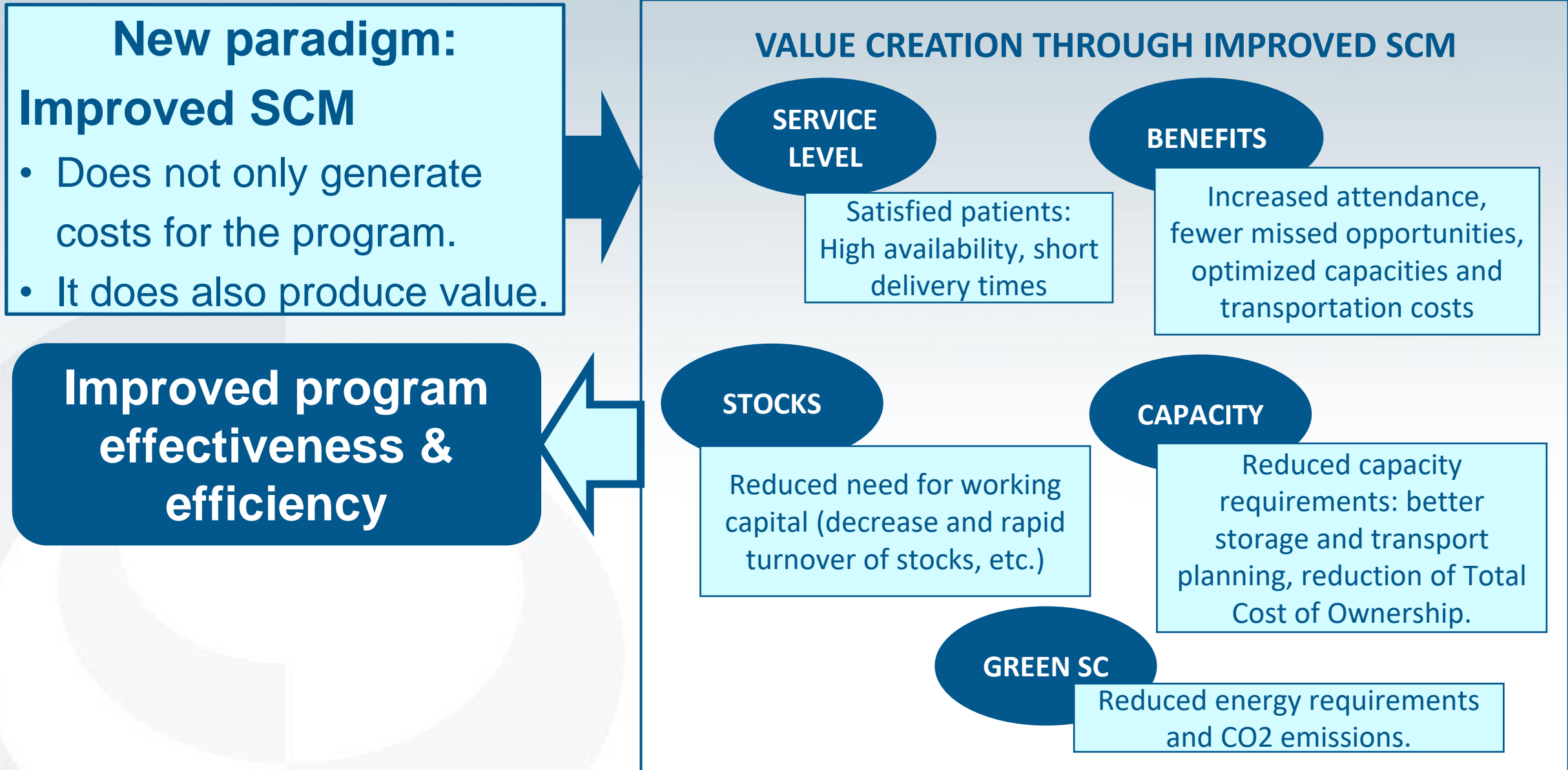
Hence the total dilapidation of the society and a country going to rack and ruin!





**What are the
implications for
supply chain
management
(SCM)?**

Importance of SCM for the Program



System redesign in Ethiopia & Zambia

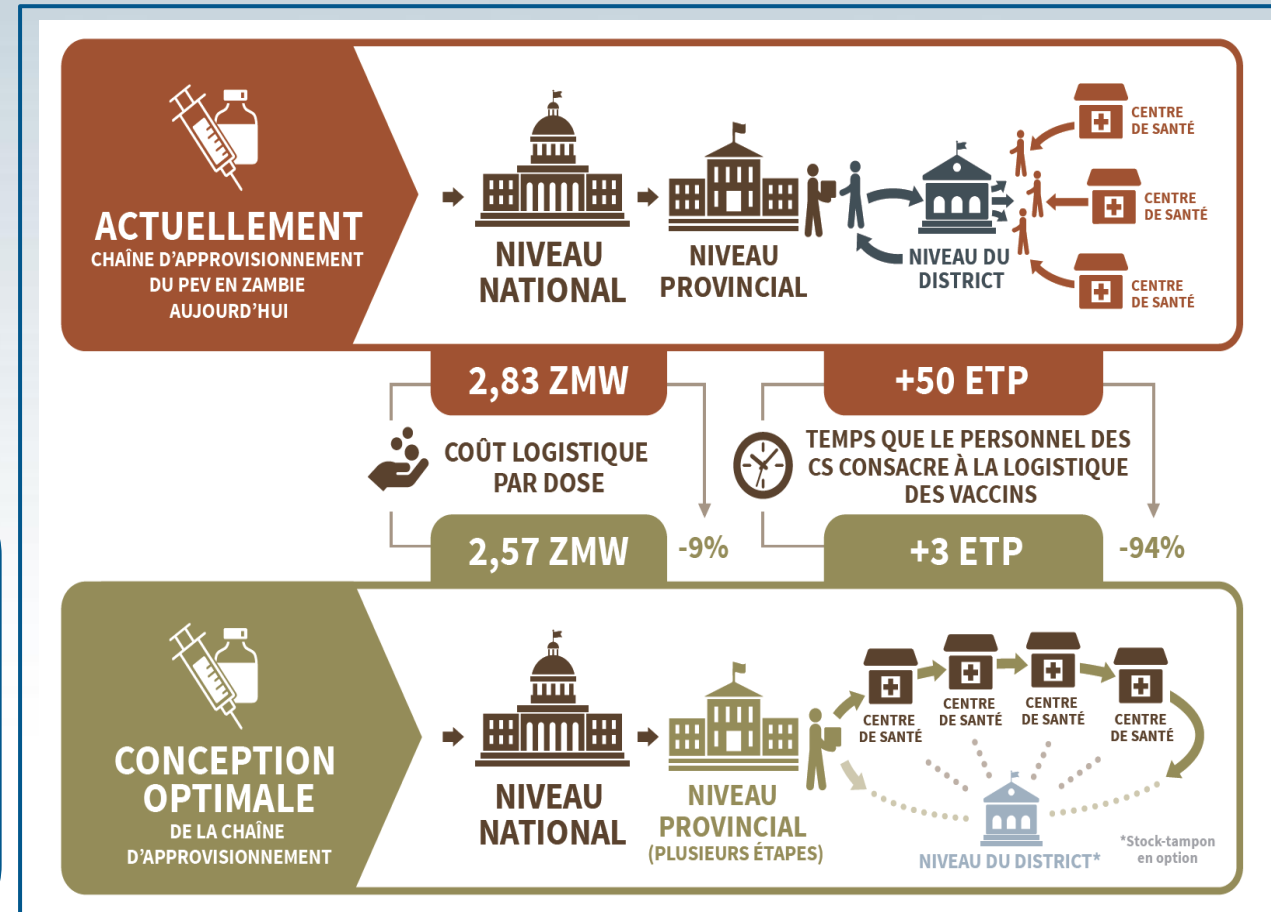
Baseline | Direct Delivery

**Total savings achieved:
119 million ETB/year
or 5.2 million USD / year**

+ a one-time saving of USD 2.7 million following the removal of the security stock in the Woredas.

delivery

Reorganization of the distribution circuit in Ethiopia: woreda stage bypassed



System redesign in Zambia

Importance of SCM for the Program

New paradigm: Improved SCM

- Does not only generate costs for the program.
- It does also produce value.



VALUE CREATION THROUGH IMPROVED SCM

SERVICE LEVEL

Satisfied patients:
High availability, short delivery times

BENEFITS

Increased attendance,
fewer missed opportunities,
optimized capacities and
transportation costs

STOCKS

Reduced need for working
capital (decrease and rapid
turnover of stocks, etc.)

CAPACITY

Reduced capacity
requirements: better
storage and transport
planning, reduction of Total
Cost of Ownership.

GREEN SC

Reduced energy requirements
and CO2 emissions.

Improved program effectiveness & efficiency



Simple carelessness can
jeopardize this agenda!



In maintenance (1/2)...

When equipment shows signs of deterioration and no one is interested in correcting them, failures will occur.

If vehicles' red lights are broken, paint scratched, bumpers ragged and no one repairs them, soon serious negligence will be observed that can cause:

- **Serious breakdowns & accidents**
- **Putting almost new vehicles on calles.**



In maintenance (2/2)...

When small negligences appear in performing maintenance tasks, without anyone being interested in correcting them, failures will arise.

If there are cobwebs behind the condenser of a refrigerator, if the outside of the refrigerator is dirty, if the solar panel is covered with dust, one can be sure that the vaccines are badly stored inside (without respecting the FEFO principle, VVM status, etc.):

- **High vaccine losses in sight**
- **Waste of domestic and donor funds.**



In immunization safety ...

If used syringes are lying around in the backyard, if filled safety boxes are misplaced, if syringes are found in the refrigerator, cold boxes or vaccine carriers, etc., chances are that immunization safety is an issue:

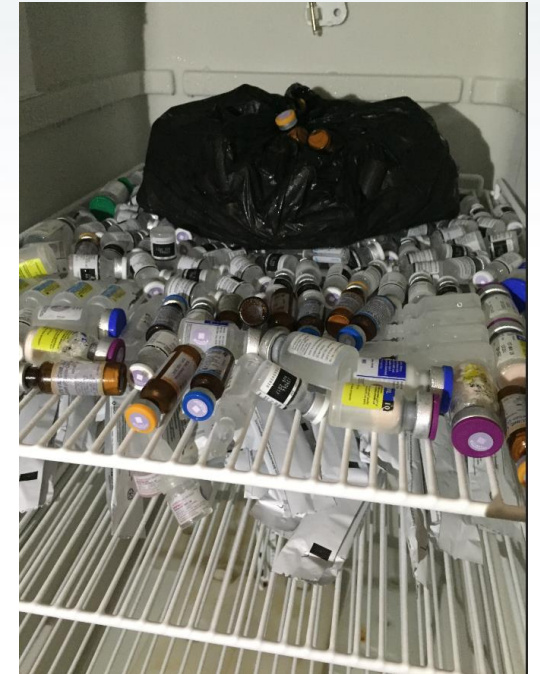
- Beware of AEFIs and nosocomial infections
- Population will lose confidence in the health system.



In vaccine management ...

If minor transgressions of management principles (e.g., outdated temperature records, poorly maintained vaccine registers, misplaced vaccines, vials with VVMs at discard point in the refrigerator, etc.) are not stopped in time, serious shortcomings in the management of vaccines at risk of :

- Major vaccine losses
- Interruption of vaccination.



In staff management ...

If cobwebs hang from the corners of the ceiling, if the walls are in poor condition with decaying paint, if there are cardboard boxes lying around, if the toilets smell bad, then you can expect to find unmotivated and unenthusiastic staff:

- A feeling of abandonment sets in
- Performance will not be there.



In the maintenance of team spirit ...

If minor behavioral shortcomings (inappropriate language, lack of respect among team members, delays at meetings, etc.) are not corrected in time, neglect gradually takes hold in interpersonal relations:

- Communication and trust between members diminish.
- A poisonous atmosphere of frustration and injustice sets in.
- Team spirit will inexorably erode and inefficiency increases: loss of performance.



Words from a General ...

General Collin Powel used to say that he always started his visit to military camps by visiting the toilets: *"If the toilets are clean and well maintained, it means that the camp commander respects his men and demands discipline from them: the camp will be well managed!"*.



... and from an Admiral



Admiral McRaven says (video link below):

*"So if you want to change the world, start by making your bed. If you make your bed every morning, you will have completed the first task of the day. This will give you a sense of pride, and encourage you to do another task, and another, and another. And at the end of the day, that accomplished task will be transformed into many accomplished tasks. Making your bed will also conform to the fact that **the little things in life matter. If you can't do the little things right, you'll never be able to do the big things right.**"*

<https://www.facebook.com/746292002085098/posts/3732554460125489/?d=w>

For Want of a Nail ...*

**“For want of a nail the shoe was lost.
For want of a shoe the horse was lost.
For want of a horse the rider was lost.
For want of a rider the message was lost.
For want of a message the battle was lost.
For want of a battle the kingdom was lost.
And all for the want of a horseshoe nail.”**

* Proverb

SECTION 3: MANAGERIAL EXPLANATION

From small "Broken Windows" to the "Depression of Will"

Small "broken windows" not repaired in SC management

Large failures in maintenance, stock management, etc.



E1 E2 E3 E4 E5 E6 E7 E8 E9

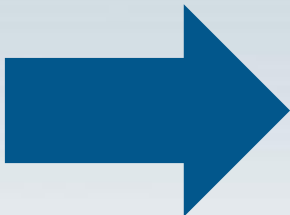
"Processes"

Symptoms of a "Depression of Will"



What causes the "Depression of Will"?

- The "Depression of Will" is not natural.
- Most people want to do a good job.
- Their goodwill seems to be repressed.
- By whom and by what?



Ill will is exonerated!



The lack of resources cannot be invoked!



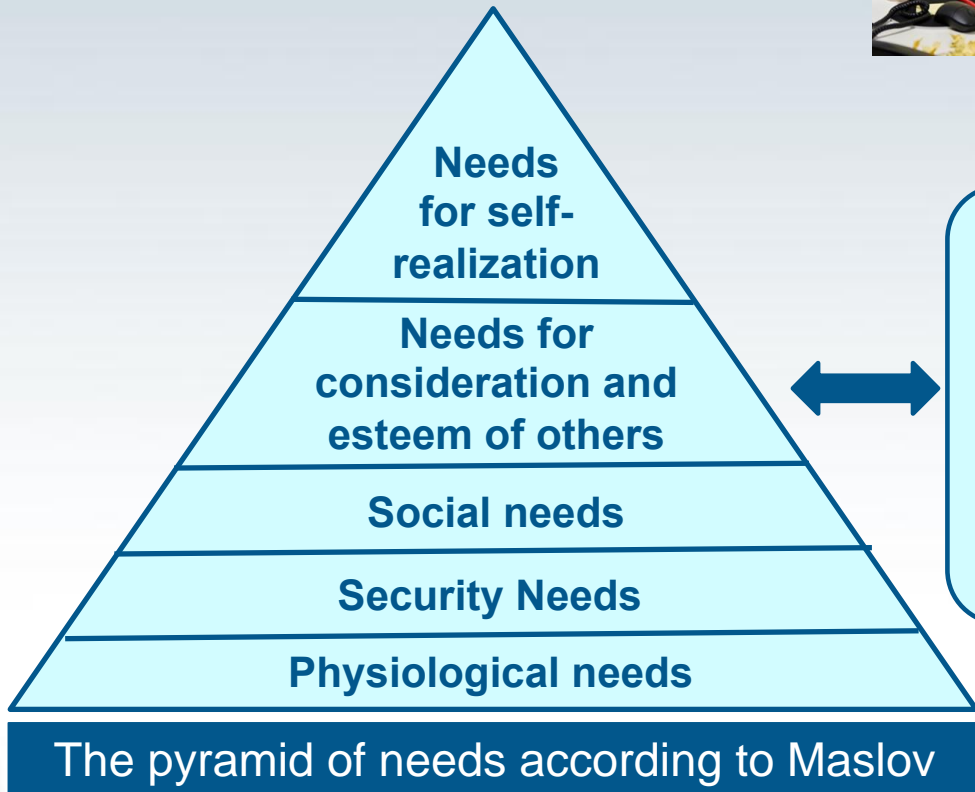
So where is the cause?

Improvement plans are funded
(GAVI – HSS, other sources)

"Look for the mobile and you will find the culprit!" (A.Christie)



Reminder:
Uncorrected "broken windows" → unsuitable and inappropriate working environment for the officers in charge of managing the SC.



In the long run, their self-esteem is undermined

This leads health workers to believe that management lacks consideration for them.



What prevents program management from correcting "broken windows" (1) ?

Management does not see the "broken windows" because they neglect supervision!

Supervision is not done regularly: first to be dropped as soon as there is a scarcity or a lack of resources.

- **Very often, supervisory teams do not include logisticians.**
- **Their members ask questions about all aspects except logistics :**
 - **The supervised staff hears through this silence an "unspoken message" meaning that logistics are not important.**

Very often, supervisors are not trained in supervision techniques: confusion between supervision and monitoring, supervision and inspection, no supervision books, etc.

What prevents program management from

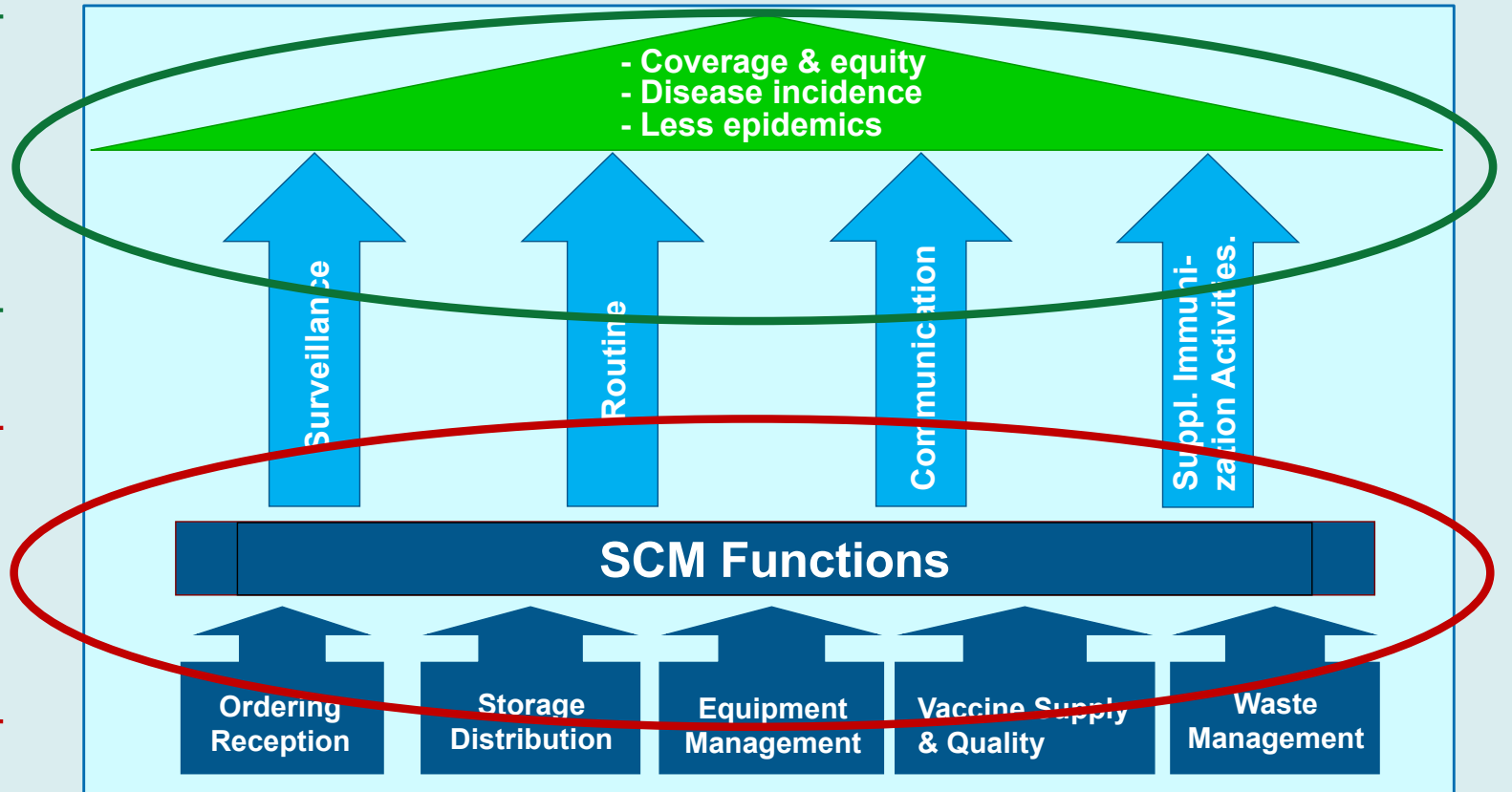
correctly managing the supply chain?

Focus on these indicators

Management does not see the "broken windows" because they overlook SCM!

Output & Outcome Indicators

Input & Process Indicators



Very often, in their reports to decision-makers & TFPs, Program Managers rarely report on SCM aspects.

SECTION 4: THE WAY OF SALVATION ...

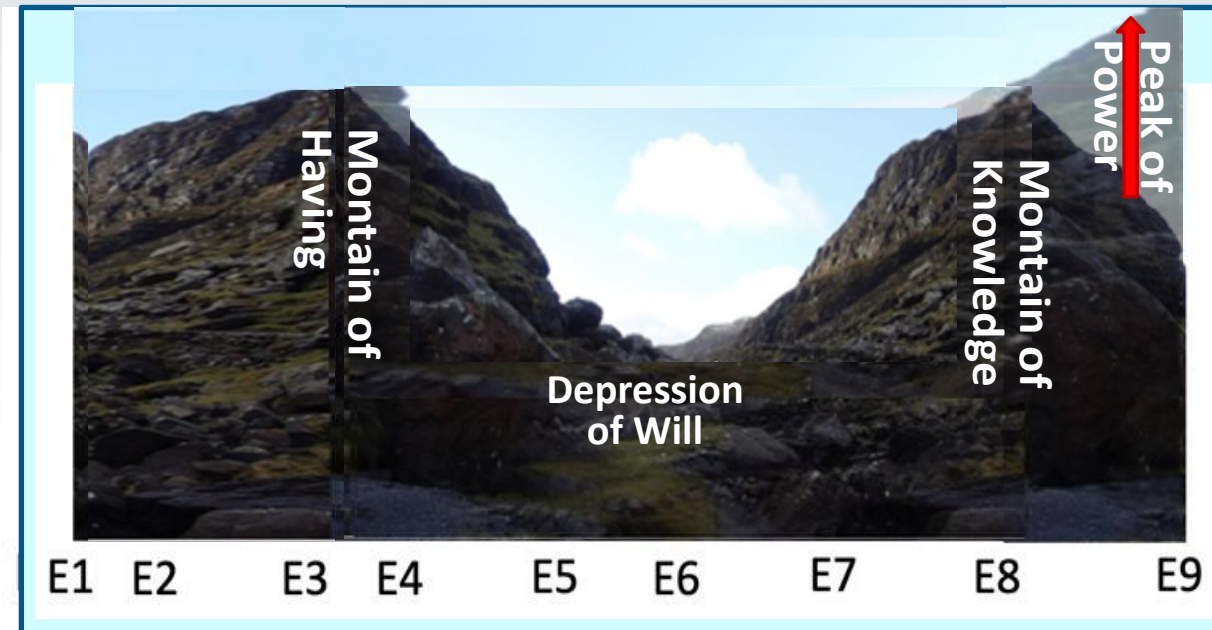
From the "Precipice" to the "Peak of Power"

To achieve this, program management must :

Reverse the slope of the "Precipice of Power" and transform it into a real "Peak of Power"

By revitalizing support functions: monitoring and evaluation (M&E), **supportive supervision.**

Using M&E results to trigger targeted supportive supervision visits.

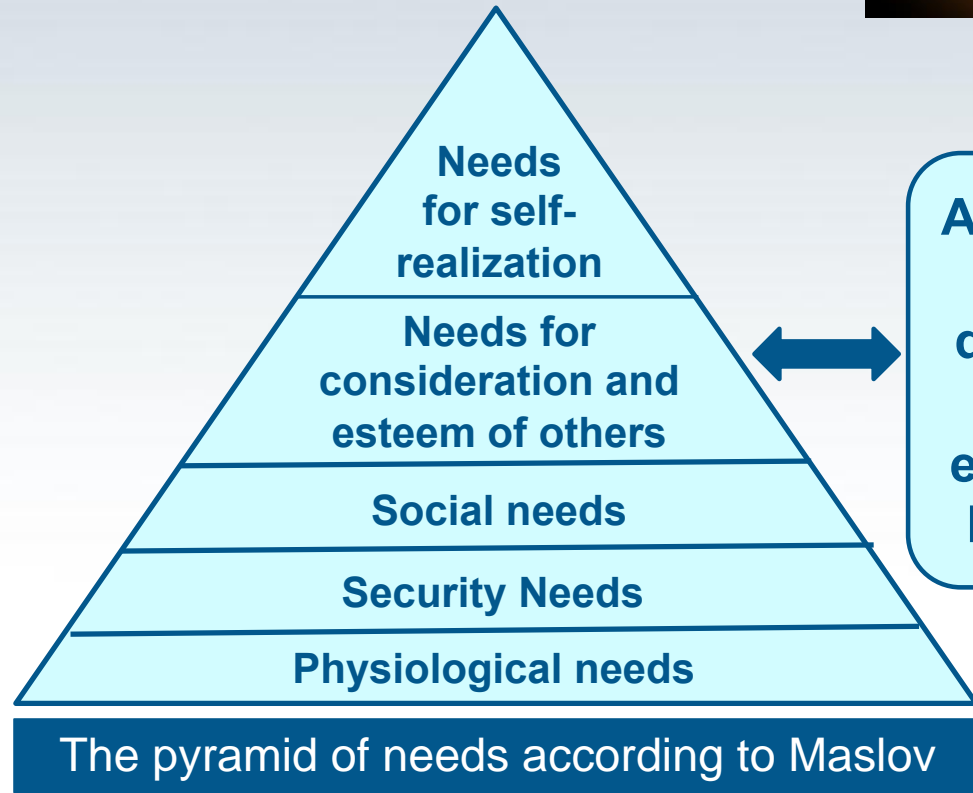


Monitoring & supervision restores agents' self-esteem



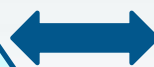
The "Peak of Power" will make it possible to:

- Detect in time all small "broken windows" in HSCM
- And make arrangements to replace, rectify, clean, store, repaint them, etc.



At the end of the day, their self-esteem is boosted

Agents will feel that the management of the program has consideration for them and for their work.



From "Depression" to the "Plateau of Will"

Self-esteem spurs the motivation of agents.

They perform process functions more efficiently.

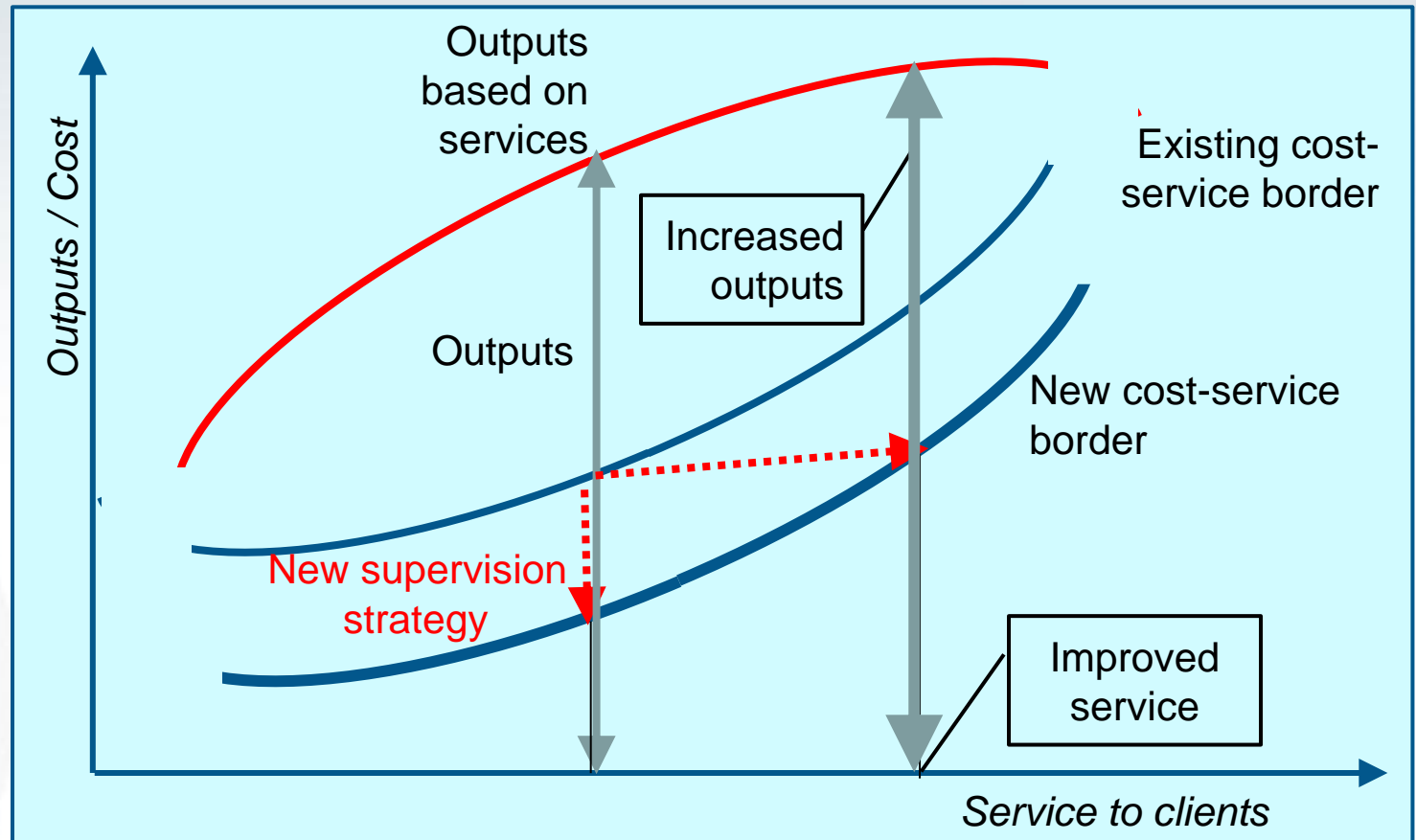
The "Depression of Will" is filled.



How is the “Plateau of Will” created?

- If we reduce the cost of supervision by targeting only low-performing SDPs (identified by analysing M&E data), we can make supervision more frequent with the same budget.
- This will help service providers in low-performing SDPs improve the maintenance of CC equipment and the management of stocks and distribution.
- This will result in improving the quality of services, which will attract more attendance → increase in coverage → decrease in disease incidence.

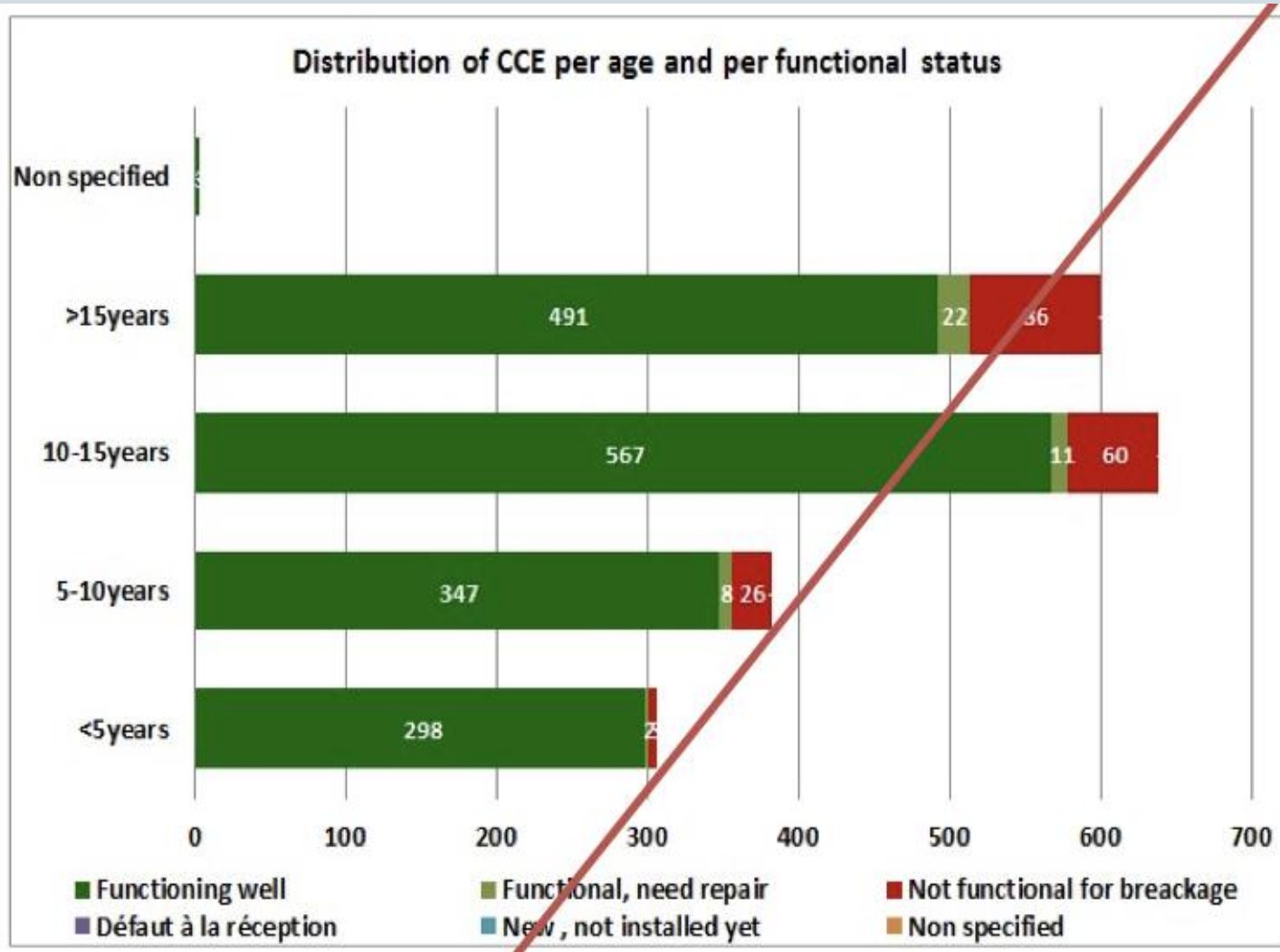
Effective supervision increases quality of services and output.



With good management, we do MORE with LESS - 1



Country One: Good maintenance : Aging park, but Good functionality.



Excellent CCE management resulting in:

- CCEs oldish, but functional
- Low percentage of non-functional CCEs
- Good maintenance in place.

Needs:

- Maintain the good maintenance system
- Plan equipment renewal timely.

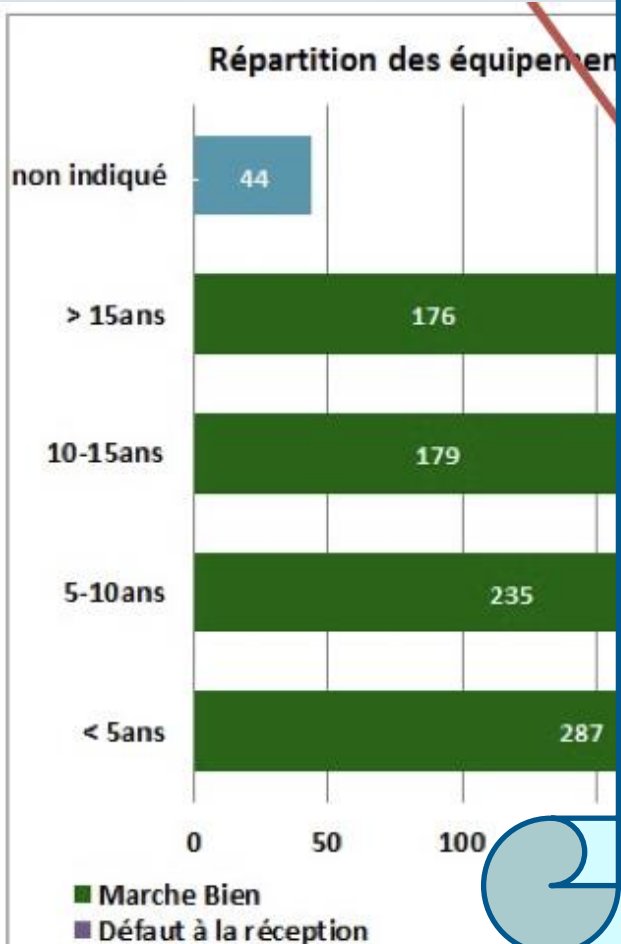
With good management, we do MORE with LESS - 2



“Where there is a will, there is a way!” (W. Churchill)

Country Two - Weak

functionality.



The most important is not to have.

The most important is rather the will!

for CCE management

ulting in:

number of non-functional CCEs increasing proportionally with age

inappropriate decisions

concerning status of CCEs

eds

reinforce monitoring

reestablish maintenance

can timely.



SECTION 5: CALL TO MANAGERS AND LOGISTICIAN

Shared responsibility

- No way out without active participation of EPI managers and SCM officers at all levels:
 - Each group has a particular role to play.
 - And within each group, the responsibility of each individual is engaged.
- Indeed, "*No single drop of water thinks it is responsible for the flood.*"*, but who can deny that it contributed to it?



RESPONSIBILITY

No single drop of water thinks it is responsible for the flood.

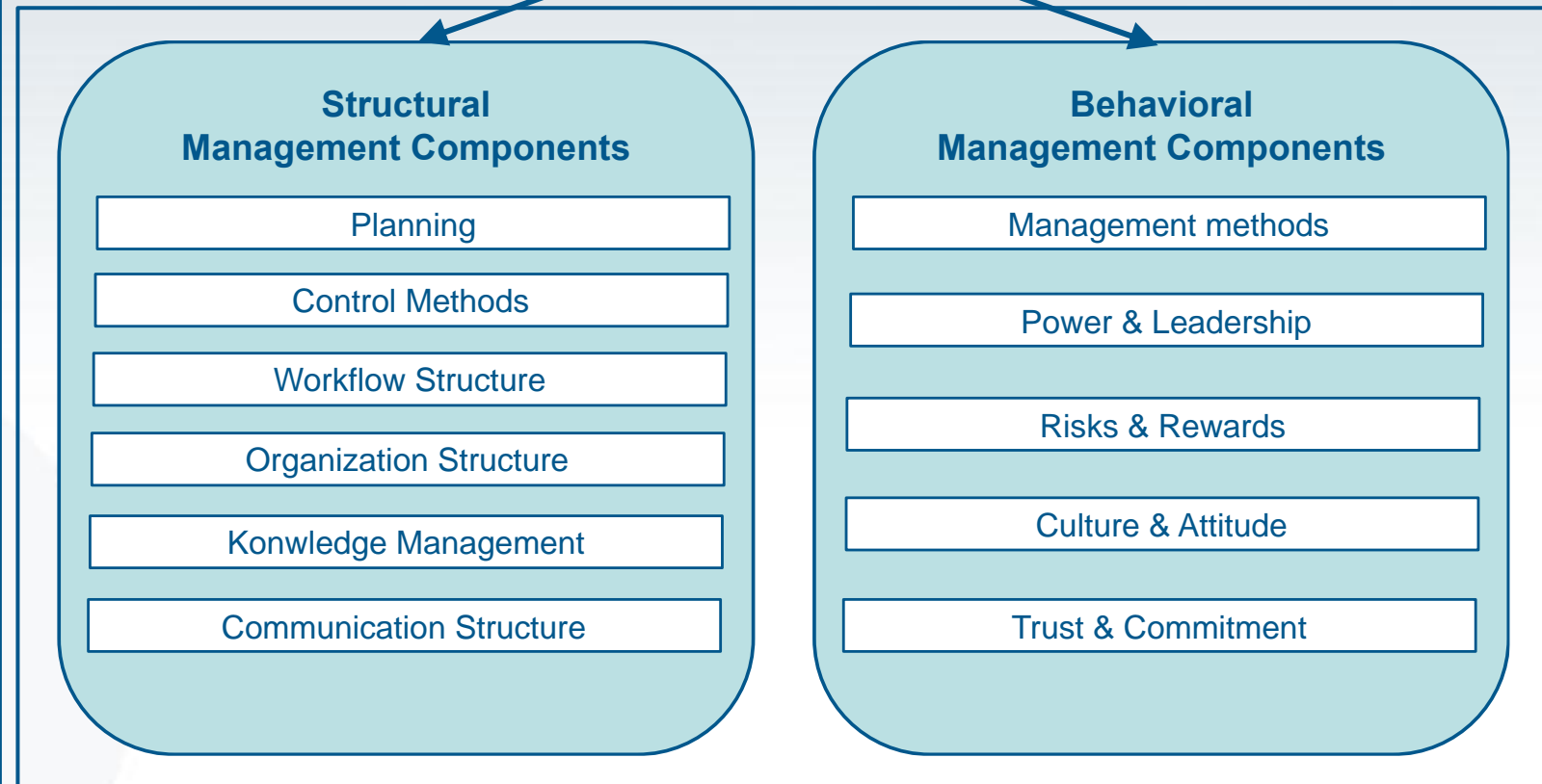
* From: "Douglas Adams Citations"

Reminder to Managers: “He who goes far spares his mount!”

“Quite often, when managers try to implement business processes, they **only focus on structural components**. These efforts have high failure rate because even though the right structure is put in place, the right behaviors are not encouraged ... the **behavioral components are critical success factors**.”

(in “Supply Chain Management”, Douglas M. Lambert, Editor, page 235)

To succeed you must cater for **both structural and behavioral** management components!



Call to Action to Managers and Decision Makers (1/3)

It is necessary to translate the "*Broken Glass Theory*" into daily management practice :

- **During initial and in-service training:** informing and raising awareness among learners and participants.
- **During supportive supervision:** observe all the "*broken windows*", bring them to the attention of the supervisees, discuss them with them and find together solutions to remedy them quickly; check on during the next visit.
- **During evaluations:** include all aspects likely to host or generate "*broken windows*" and evaluate them (for example, in EVM 2.0, toilets are evaluated).



Call to Action to Managers and Decision Makers (2/3)

Within the limits of your budgets, show your SCM officers that you respect them :

- By providing them with a clean working environment even if it is oldish.
- By giving them a budget to ensure a minimum of maintenance of their equipment.



Or here?

Where would you like to work?

Here?

Call to Action to Managers and Decision Makers (3/3)



Be strategic about SCM:

- Recognize SCM as a strategic function within your program:
 - Remember the new paradigm highlighting the fact SCM is now recognized as a value-generating function and no longer solely a cost-generating function;
 - Take into account that **SCM is in charge with 75% of the value** of your program.
- To get the full benefit of sound SCM, recognize your SC Manager as professional:
 - Involve her/him in your planning, monitoring and reporting meetings at all levels: strategic (central) or operational (districts);
 - Invite her/him in your meetings with your technical and financial partners.
- Good managers know SCM is strategic! Only bad managers overlook SCM!

Call to Action to Managers and Decision Makers (3/3)



Good managers know SCM is strategic! Only bad managers overlook it!

- Remember: SCM is a value-generating function and no longer solely a cost-generating function;
- Take into account that **SCM is in charge with 75% of the value** of your program.

- Involve her/him in your planning, monitoring and reporting meetings at all levels: strategic (central) or operational (districts);
- Invite her/him in your meetings with your technical and financial partners

Recognize SCM as a strategic function within your program

Recognize your SC Manager as a professional officer

Be strategic about SCM

Call to Action to SCM Officers (1/4)

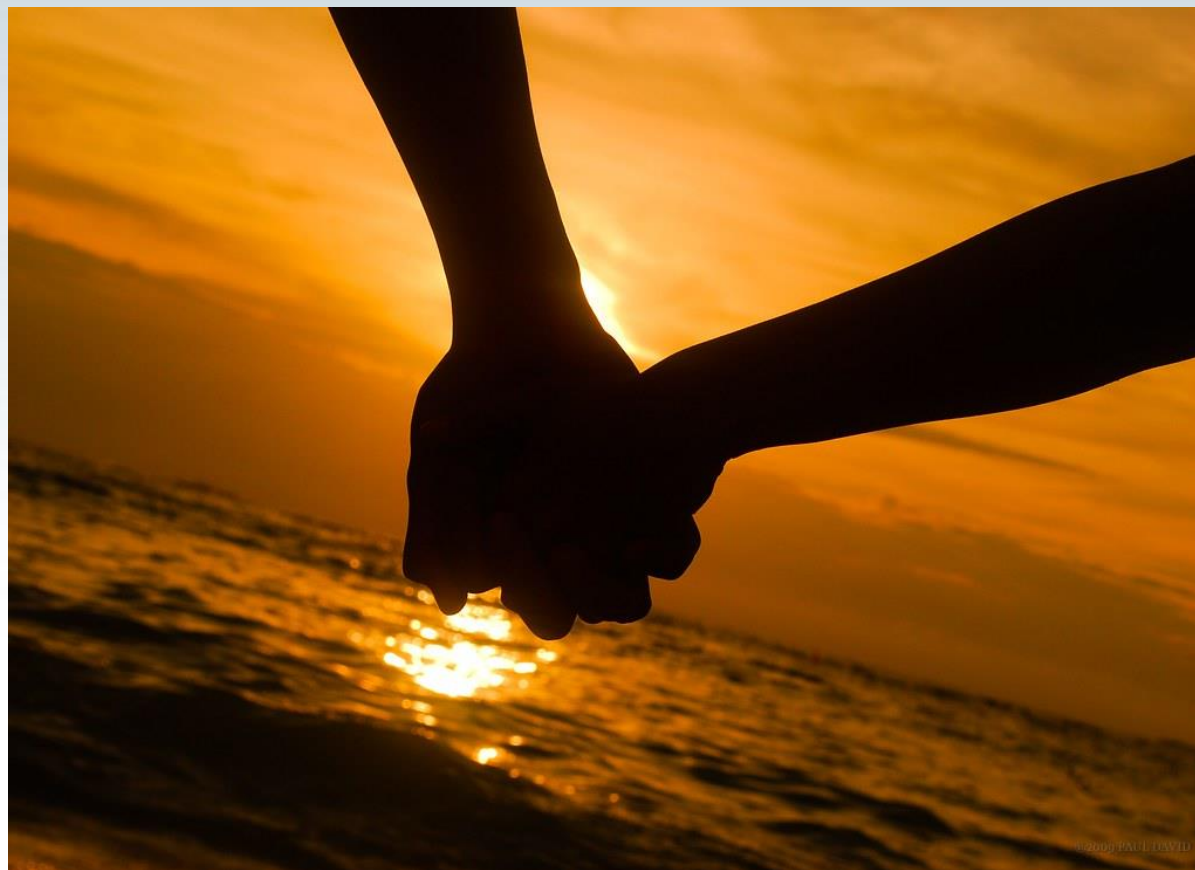
It is necessary to translate the "*Broken Window Theory*" into your life, relationships and daily practice of SCM :

- Don't leave any "*broken window*" non-fixed in your behavior and in your physical and social environment at home or at work.

Knowing is **not** enough;
We must **apply**.
Willing is **not** enough;
We **must do**.
Goethe

Call to Action to SCM Officers (2/4)

- In your behavior:
 - Do not allow yourself any deviations in behavior or language that could "*break windows*" in your family, social and professional environment.
 - Maintain respectful and cordial relationships with relatives, friends and colleagues.



Call to Action to SCM Officers (3/4)

In your physical environment:

If your employers give you a decrepit and dirty work environment, as well as old or outdated work equipment,

show them that you respect yourself:

- By keeping this work environment always clean and tidy
- And by maintaining as much as you can these equipment.



Responsable PEV devant le réfrigérateur le mieux tenu (Hôpital de Domoni, Comores)

Call to Action to SCM Officers (4/4)

Do the best job you can:
Your self-esteem can only be if it is based on the feeling that you have accomplished your work to the best of your intellectual and physical abilities. Otherwise, it will be at best bragging, at worst sham.



TAKE-HOME MESSAGE

Take-home Message

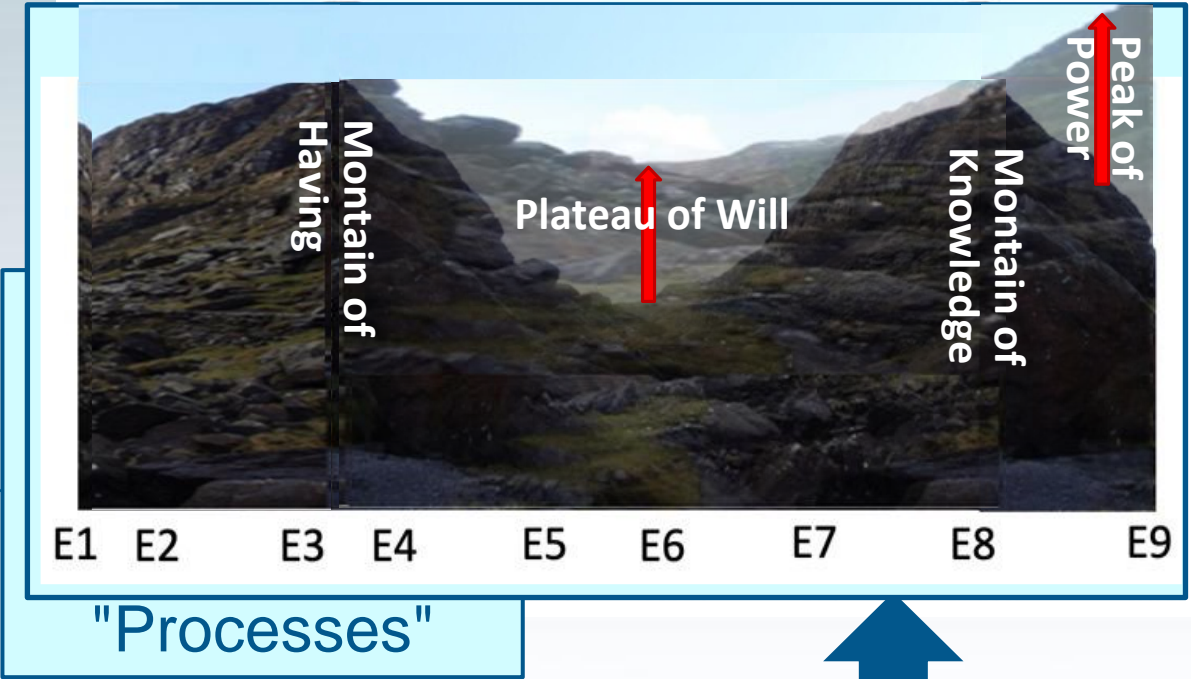
- My old Mom always used to say: “pɛrɛn misɛn de bɛ kɛ pɛrɛn kunba ye”!
 - Or in English: "*It's the little cracks that become the big rifts!*"
 - Isn't that the African version of the "Broken Glass Theory"?
- The "**broken windows**" in **SCM** are the small deteriorations, the small neglects, the small transgressions of principles, the small dirt, the small disorders, the small behavioural shortcomings that signal cracks in our system of rules, authority and values.
- If we are not careful to correct them quickly, bad habits are engulfed in them and they become big rifts that will crack the walls of our supply chain management building at the risk of rendering it ineffective or even inoperative.

Reminder: From "Depression" to the "Plateau of Will"

Self-esteem spurs the motivation of agents.



They perform process functions more efficiently.



The "Depression of Will" is filled.

And at the rendez-vous, your reward in smiles ...

Good dancers learn to dance in solitude by watching themselves dance in a mirror, i.e. by supervising themselves.

Do the same:

BE YOUR OWN SUPERVISOR!

Not only will you become excellent, but in addition here is your reward:



What could be more beautiful than those smiles of well vaccinated Mom and Baby?



Thank You!

Remember:

Be your own supervisor!

"No one is denied health care because of a lack of product or energy in compliance with local regulations and international conventions on the environment."

The Balanzan Institute (TBI)