



# **Better Training for Safer Food** *Initiative*

**The alternative method to  
the Codex Alimentarius  
decision tree for the CCPs  
& GHP/GMP determination**

# **BTSEF**

**Addis Ababa, Ethiopia  
28 August-3 September 2016**



## Microbiological risk's characteristics

3 components

Contamination



Controlled by GHP & GMP  
non appropriate to  
CCPs implementation

Multiplication  
Survival



Depending on physicochemical  
parameters (Time, pH, Aw)  
suitable to CCPs implementation

“That is the reason why HACCP is essentially adapted and applicable to microbiological risks’ control with very few exceptions”:

- residues dilution or concentration in liquid foodstuffs
- neoformed substances by cooking and/or other heat treatments

## Chemical & physical risks’ characteristics

1 component



Contamination

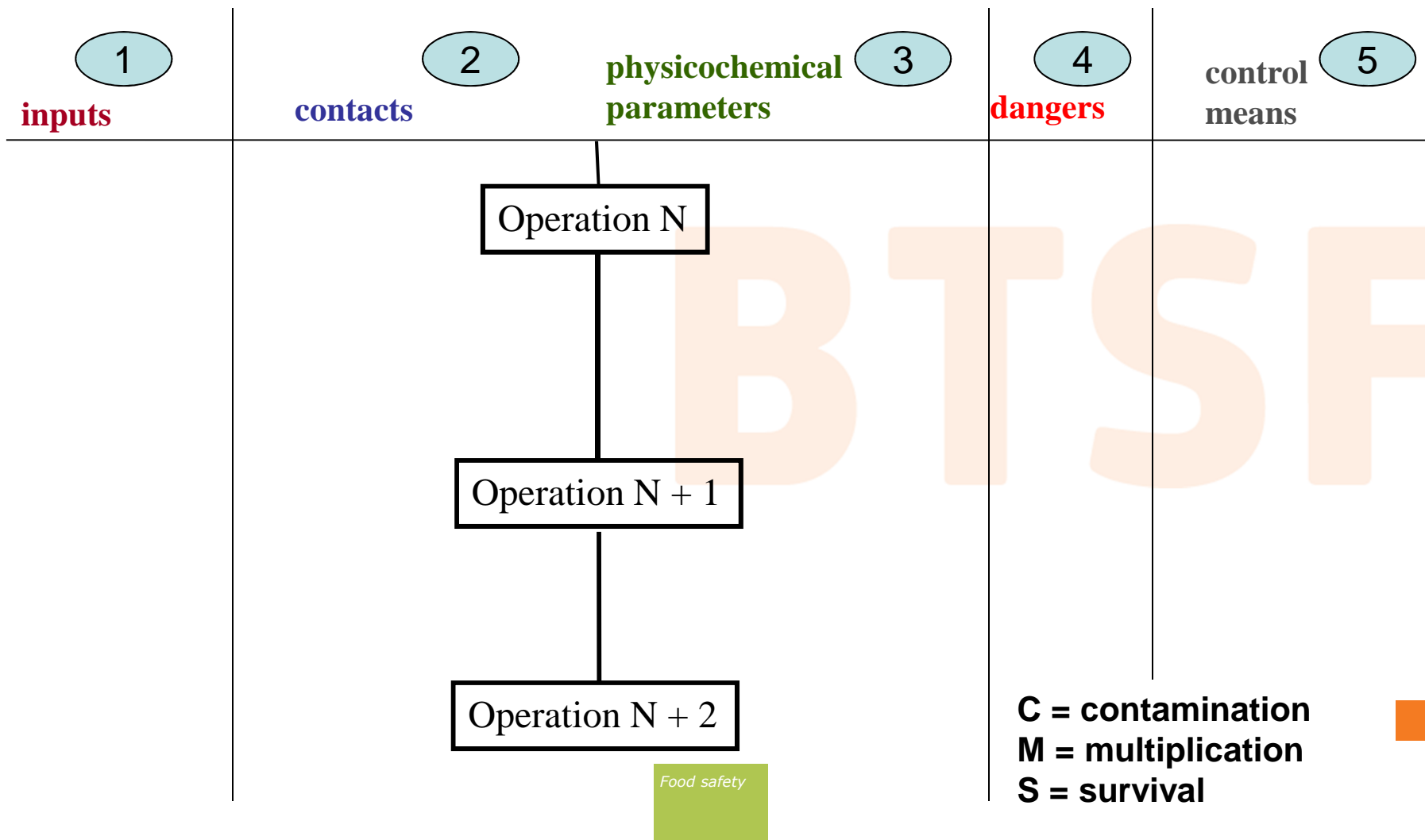
Food safety



Controlled by GHP & GMP  
Non appropriate to  
CCPs implementation

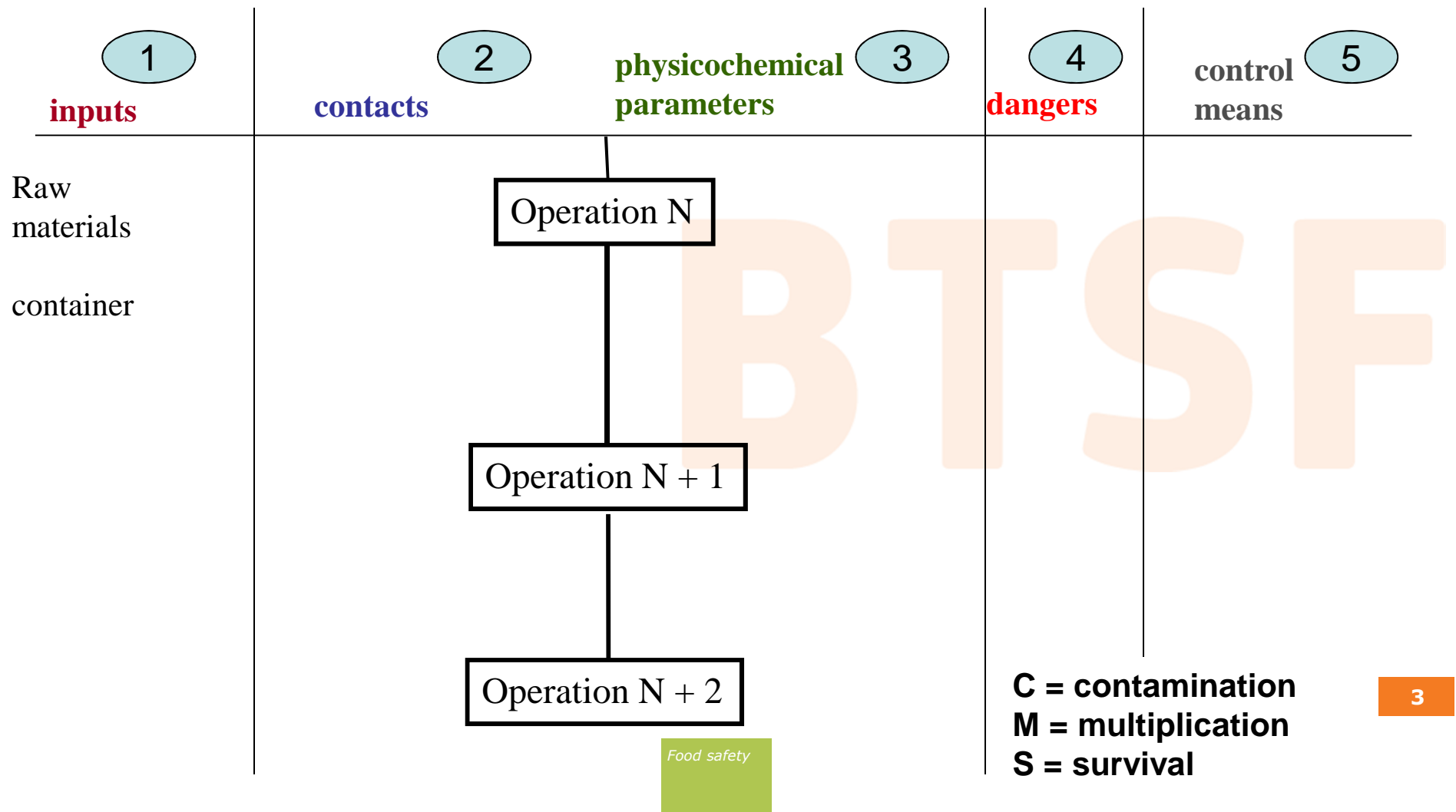


## The alternative method to the Codex Alimentarius decision tree for the CCPs determination



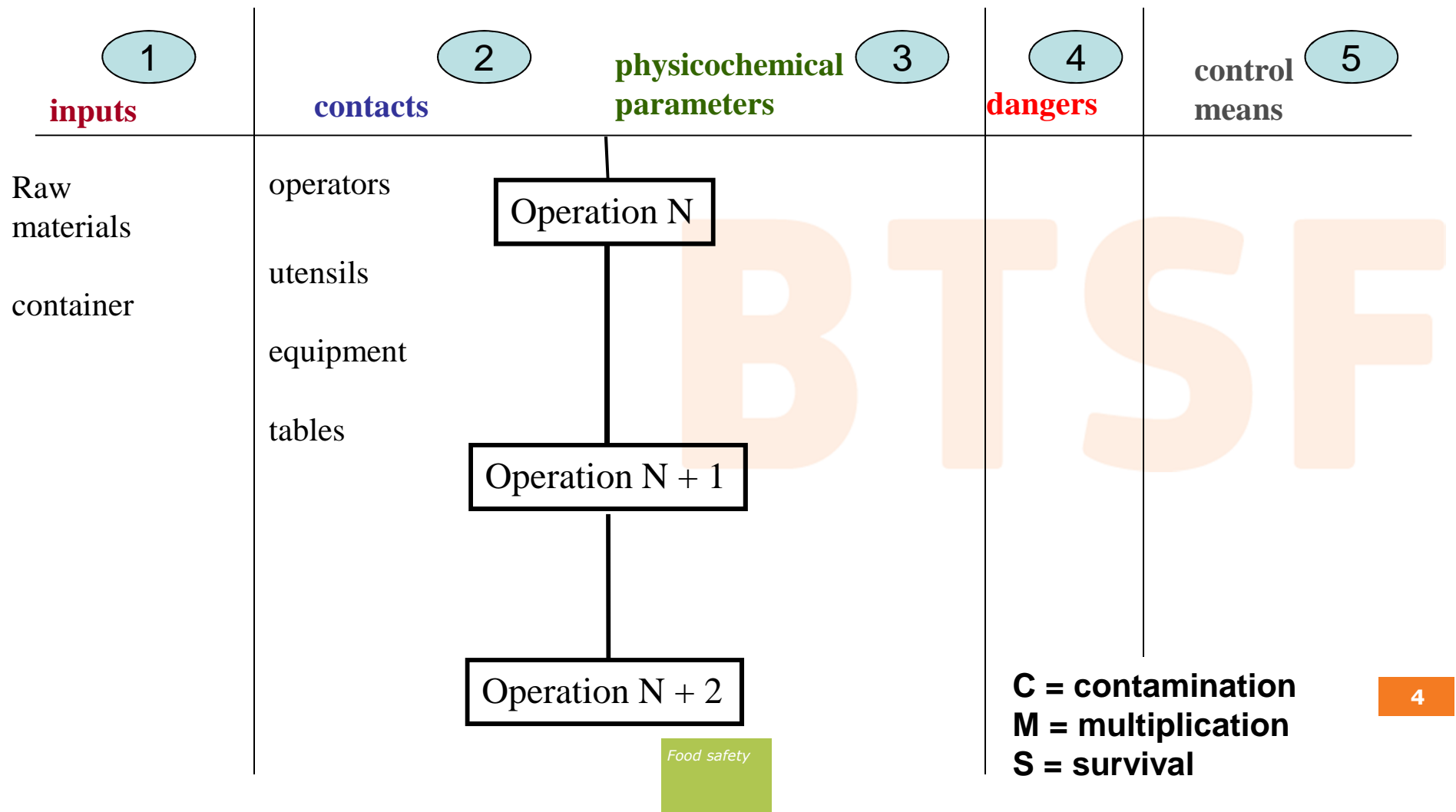


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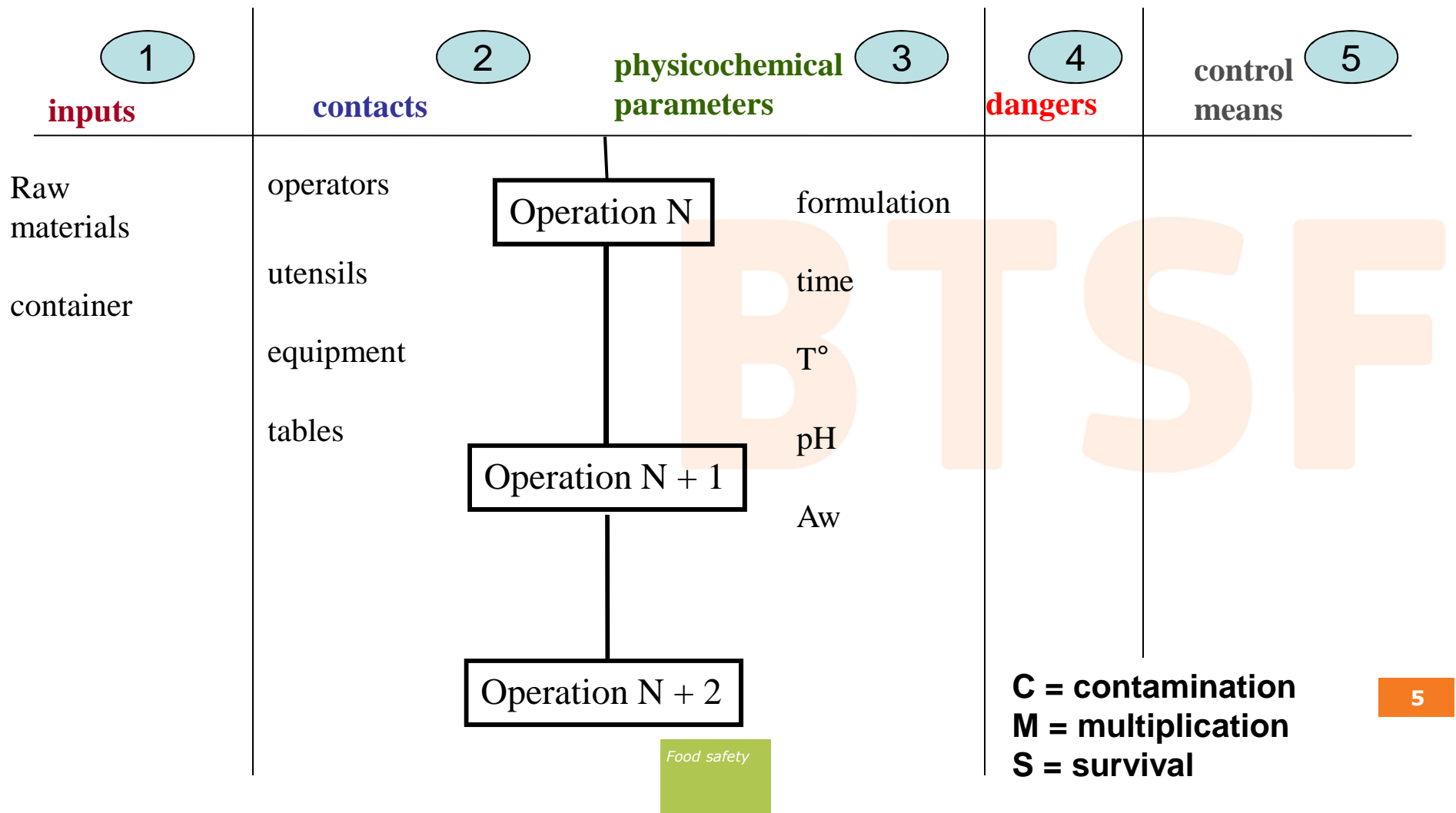


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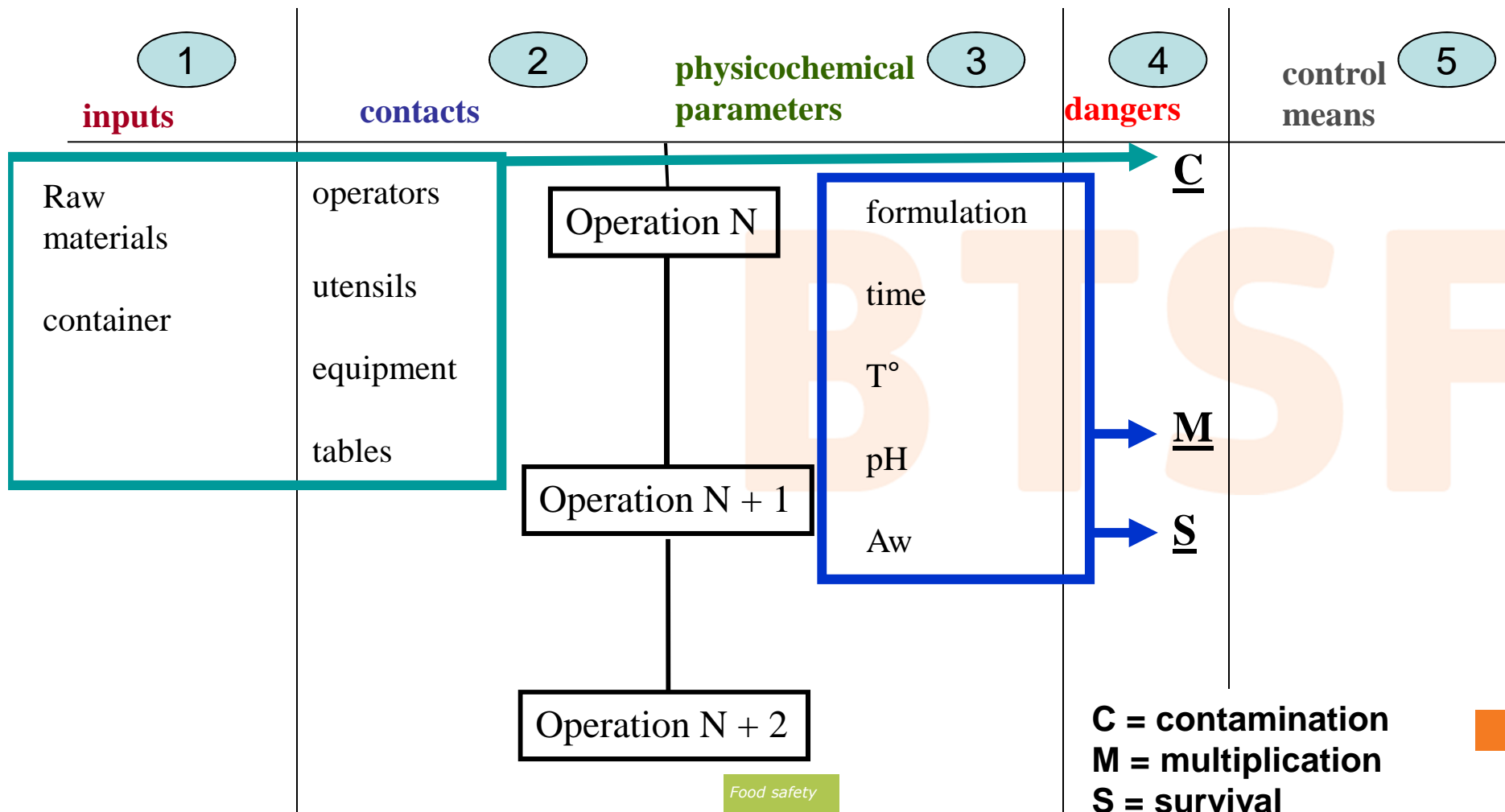


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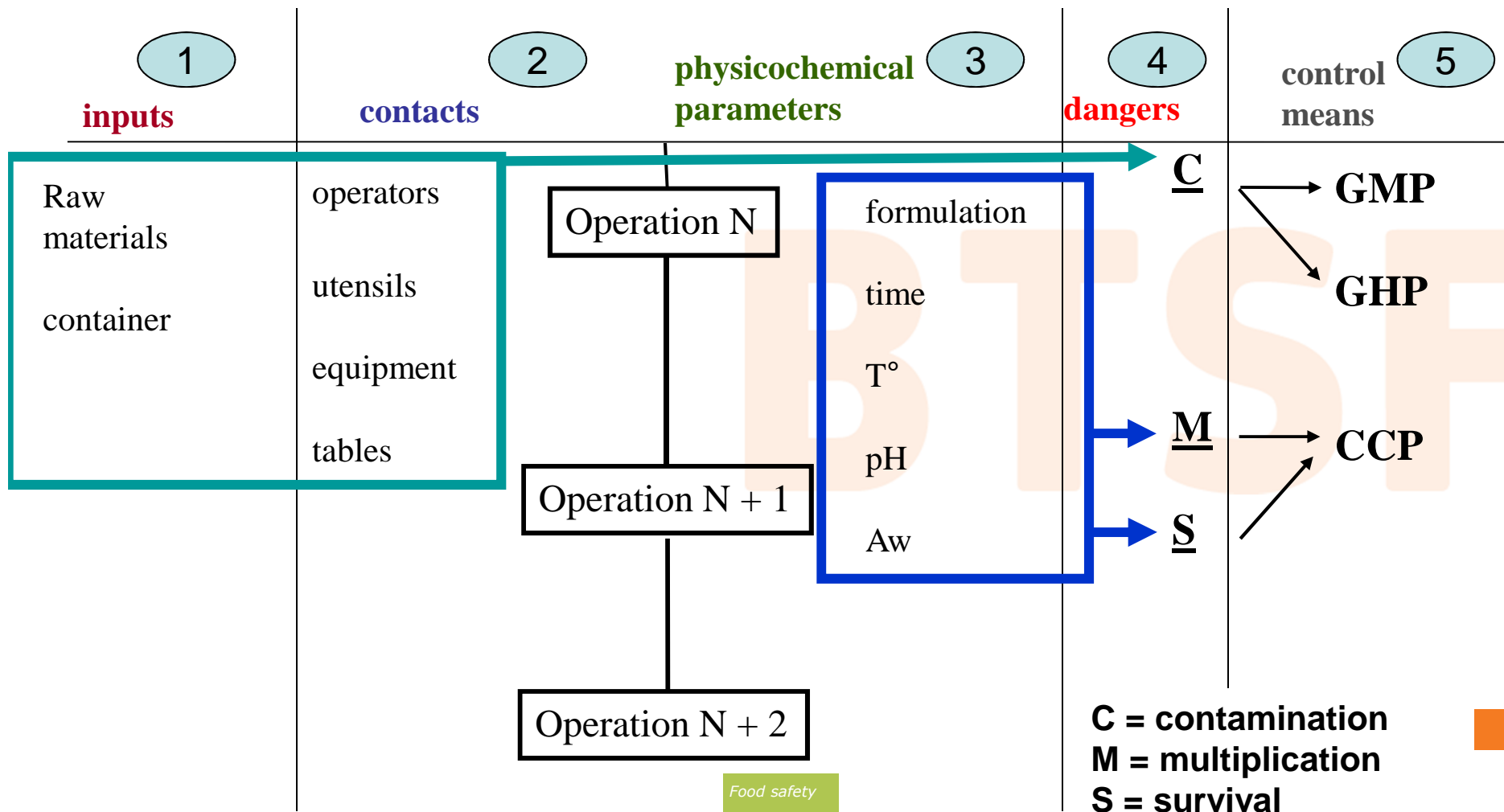


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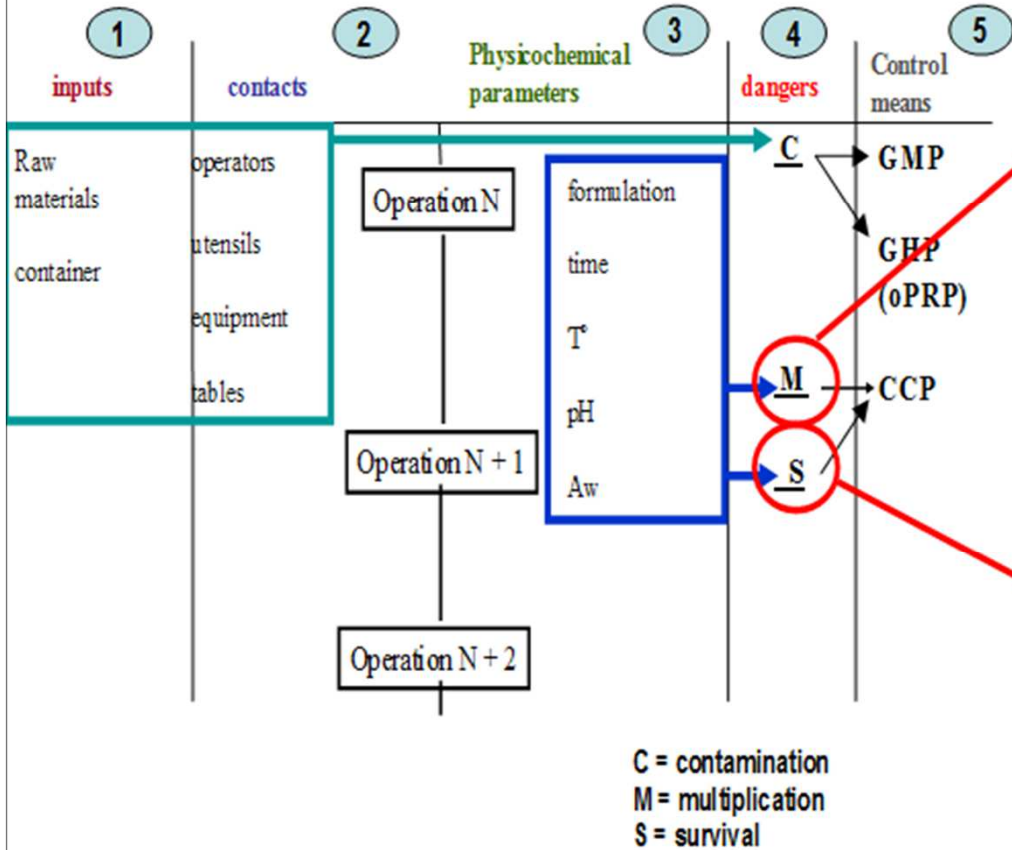






European Commission

### The alternative method to the Codex Alimentarius decision tree for the CCPs determination



Definition of critical limits, target values and tolerance of each CCP specific parameters aiming to control **multiplication** (Time, T°, Aw, Ph, ...), by application of **"predictive microbiology"**.

Definition of critical limits, target values and tolerance of each CCP specific parameters aiming to control **survival** (Time, T°, ...) by calculation **pasteurizing values and sterilizing values**

Richard BONNE soutenance de thèse 15 décembre 2012



The alternative method to the decision tree for the CCPs determination, practical example of “salt pork with lentils”

1 inputs	2 contacts	3 physicochemical parameters	4 dangers	5 control means
Pork meat salt nitrite water lentils Pepper	hands utensils pot	<div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">mixing</div> <div style="margin: 5px 0 5px auto;"> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">cooking</div> <div style="margin: 5px 0 5px auto;"> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">conditionning</div> <div style="margin: 5px 0 5px auto;"> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Cooling</div> </div> <div style="margin-left: 100px;"> <p>time T°</p> <p>Time T°</p> </div>	<div style="text-align: center;"> <p><u>C</u></p> <p><u>S</u></p> <p><u>C</u></p> <p><u>M</u></p> </div>	<div style="text-align: center;"> <p>GMP GHP</p> <p>CCP</p> <p>GMP GHP</p> <p>CCP</p> </div>

C = contamination  
 M = multiplication  
 S = survival



# THANK YOU

## **AESA Consortium**

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### **Better Training for Safer Food BTSF**

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Food safety