



Gestão Total de Qualidade

TQM
TOTAL QUALITY
MANAGEMENT

TQM

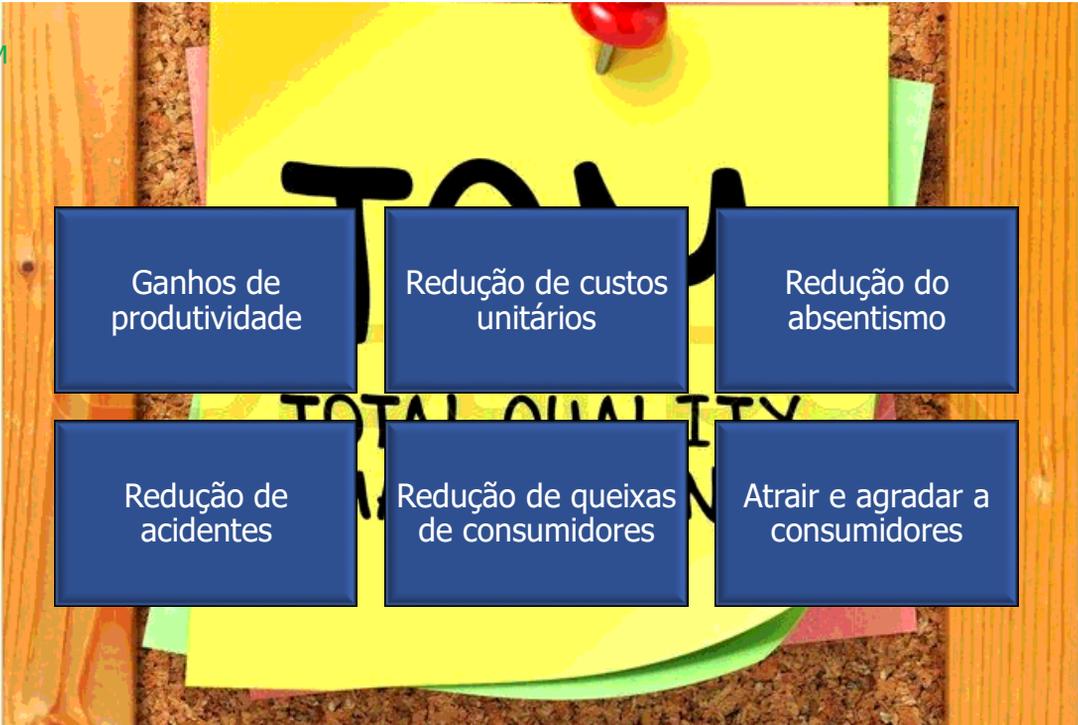
Empregados colaboram
com gestão

Empregados têm voz no
processo

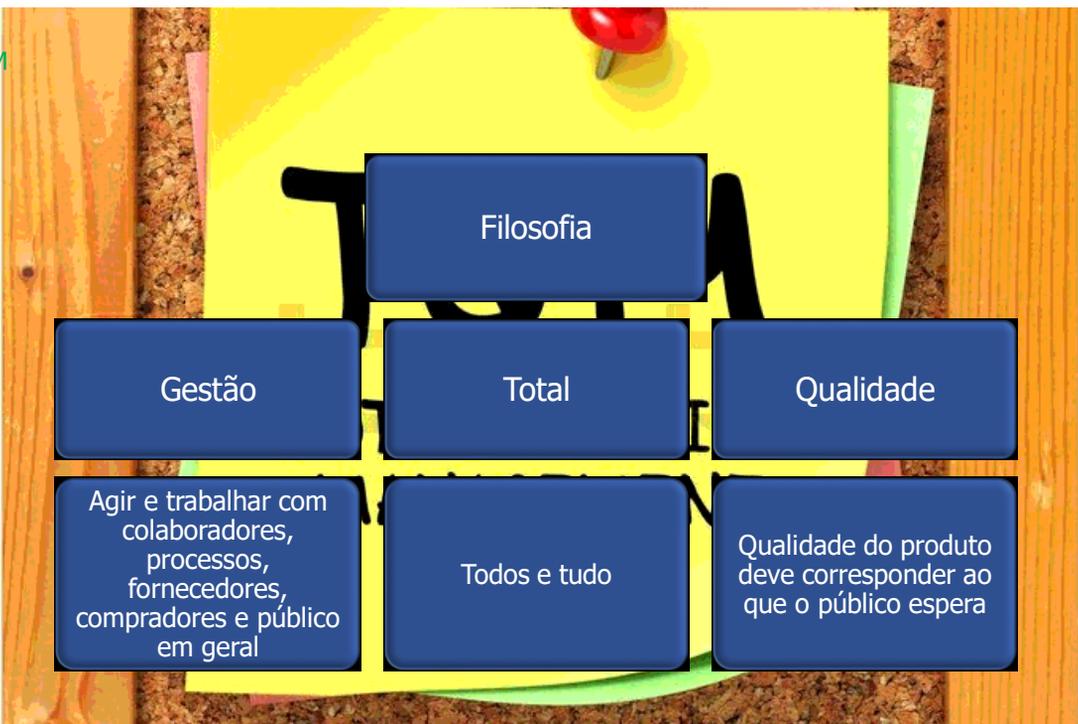
Empregados sentem-se
parte da direcção

Trabalho em equipa

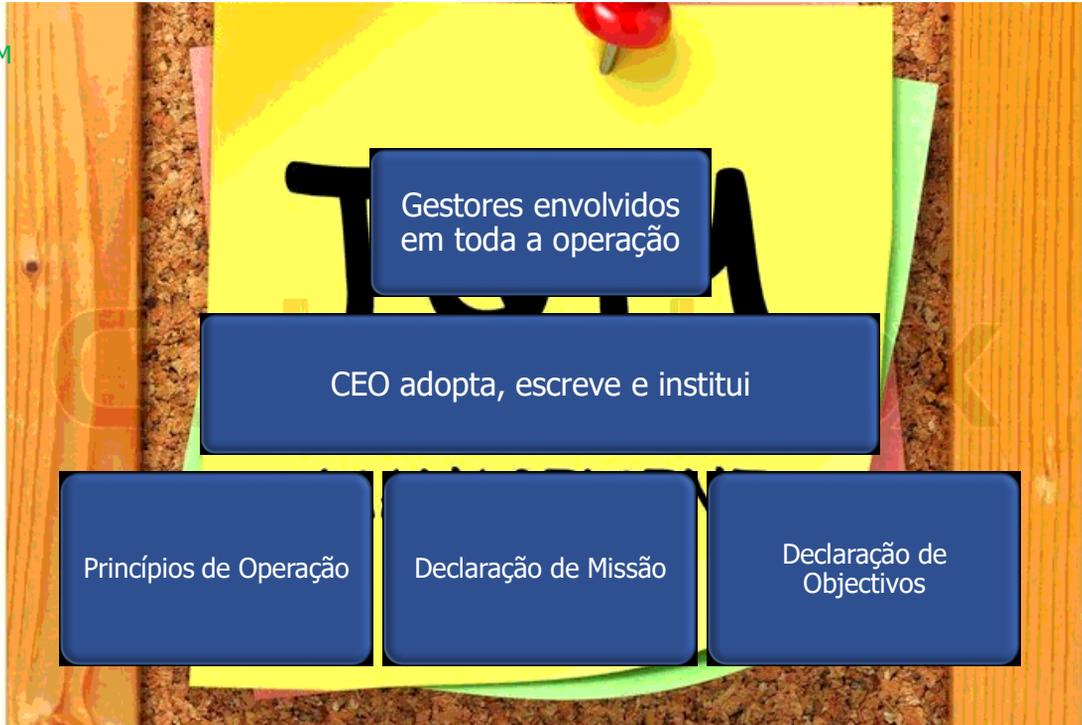
TQM



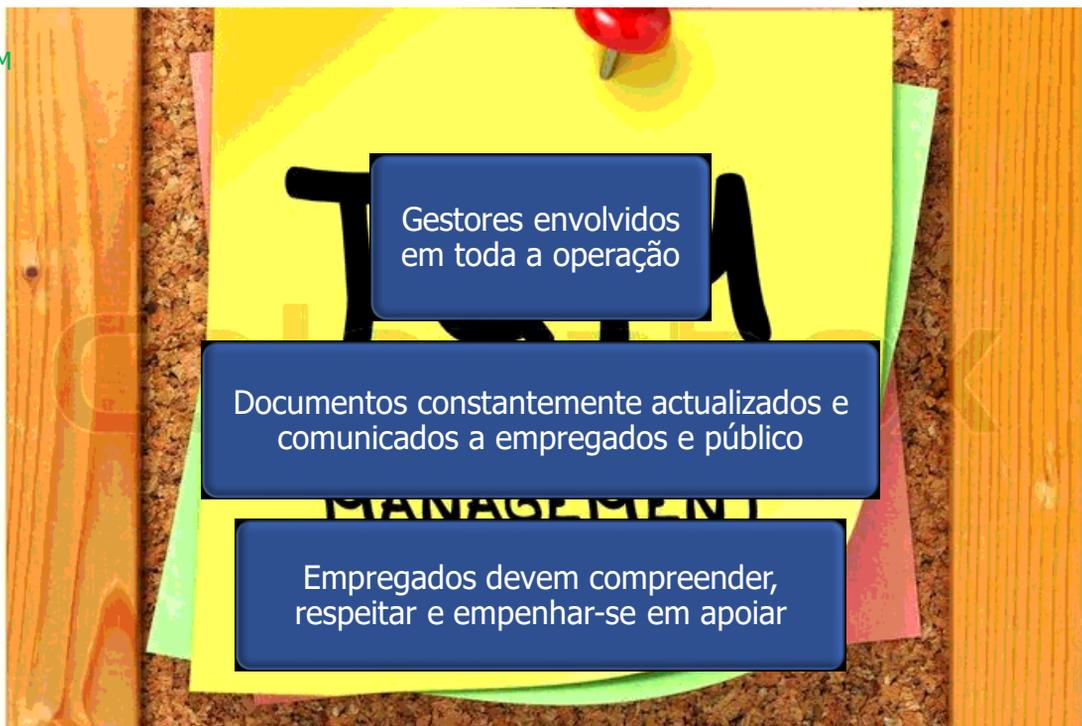
TQM



TQM



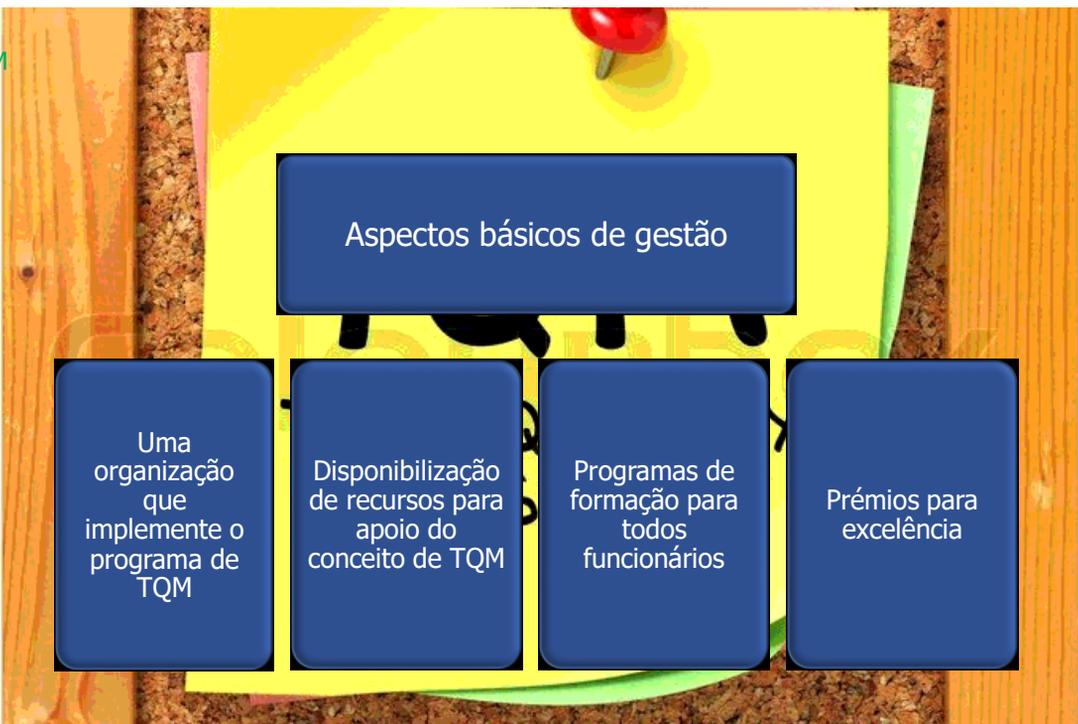
TQM



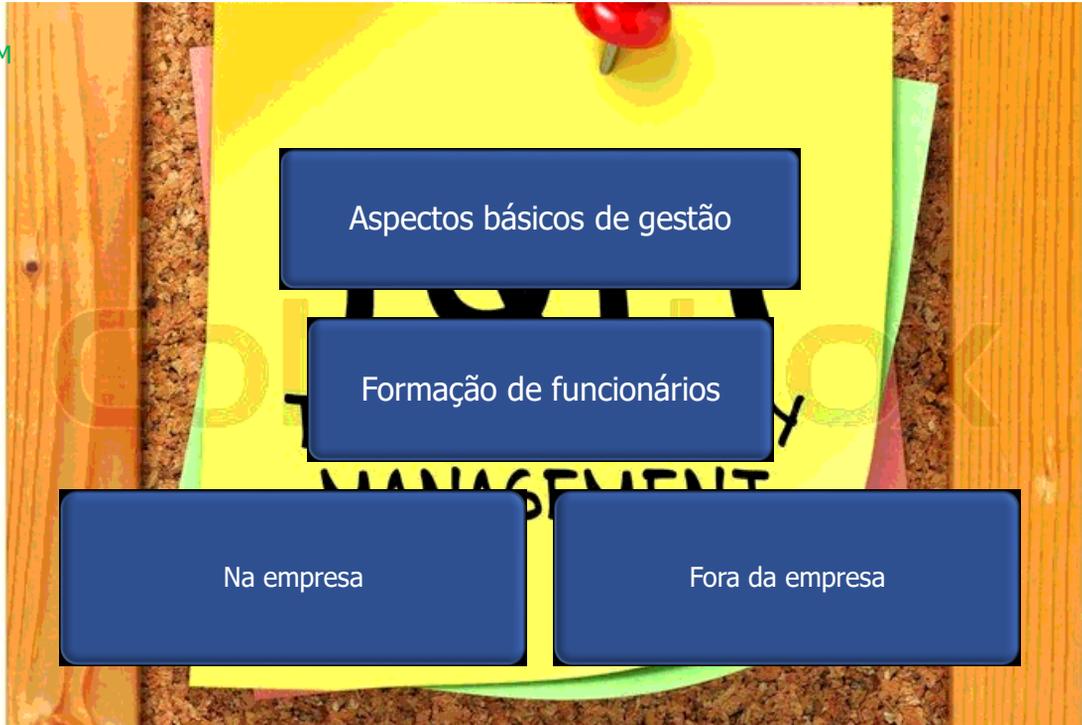
TQM



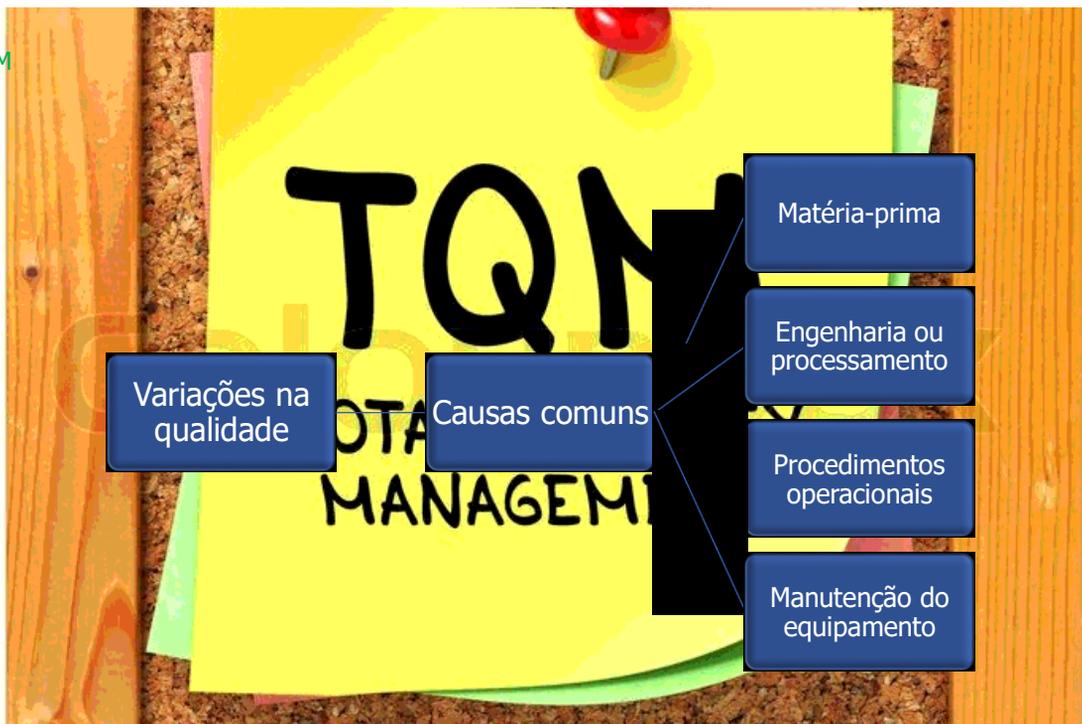
TQM



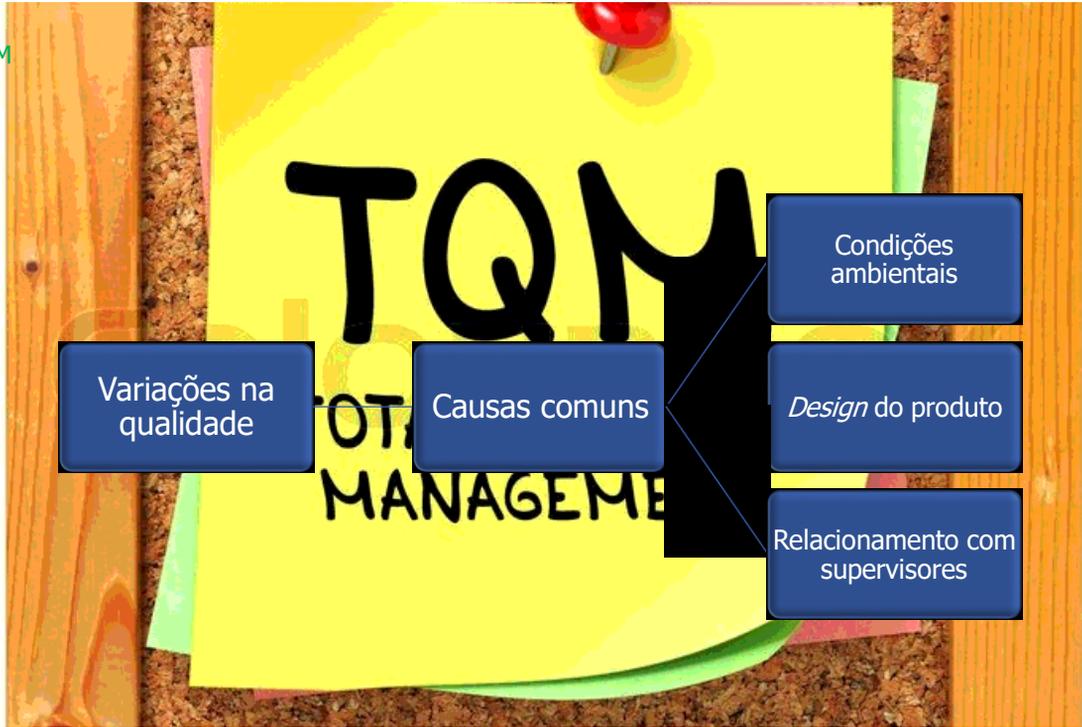
TQM



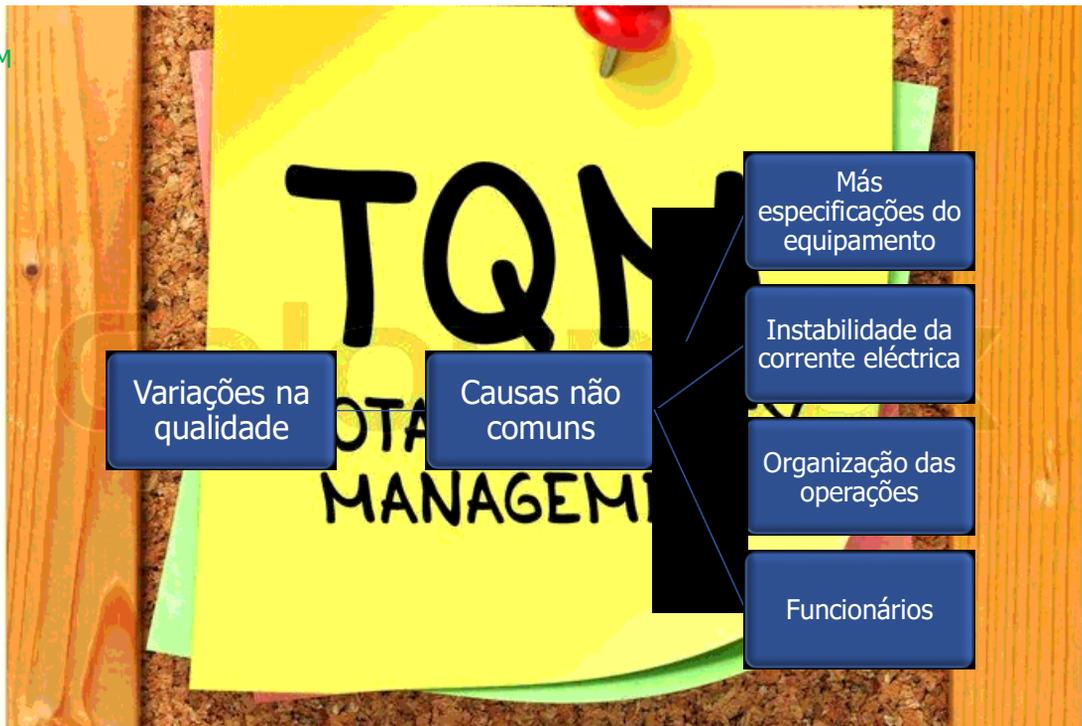
TQM



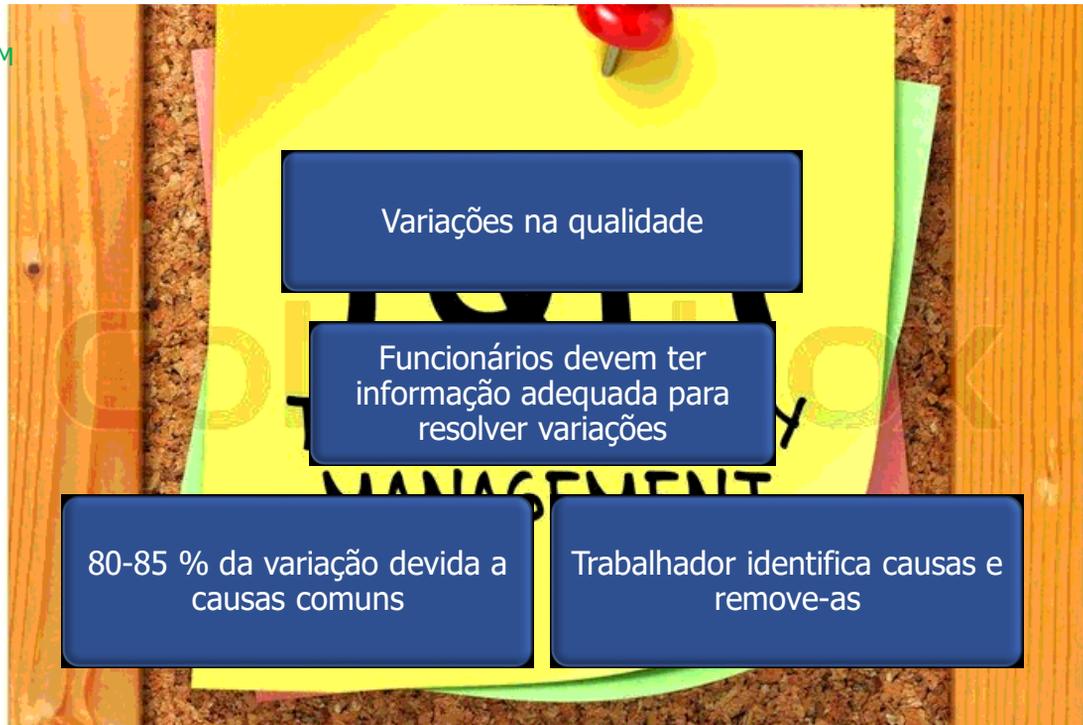
TQM



TQM



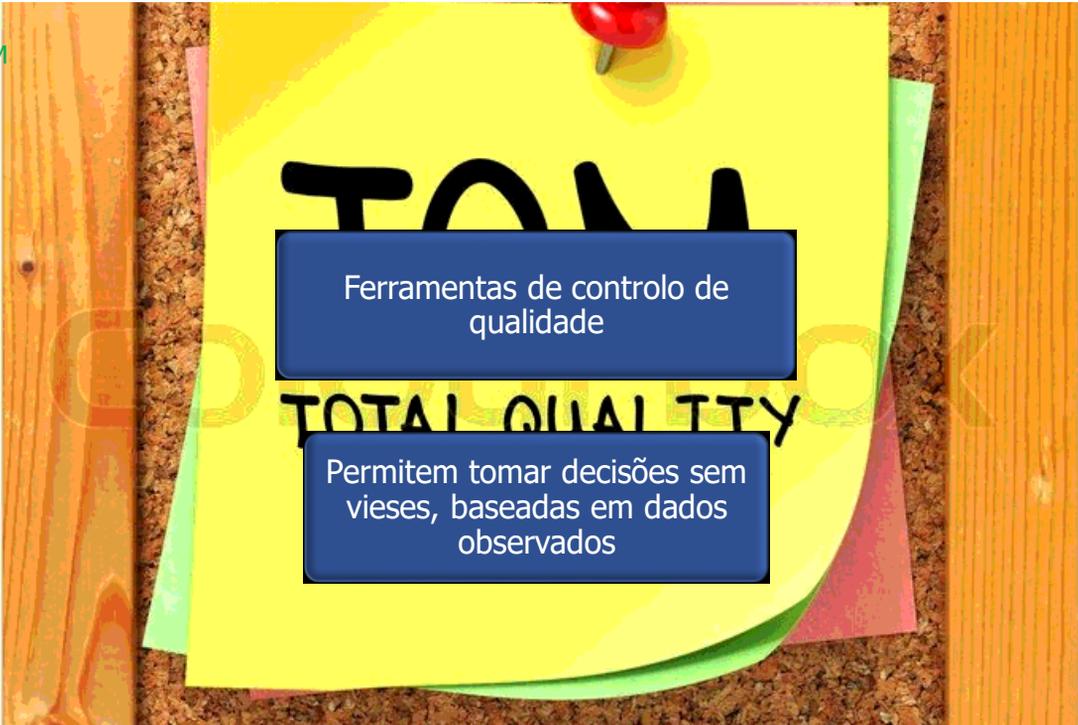
TQM



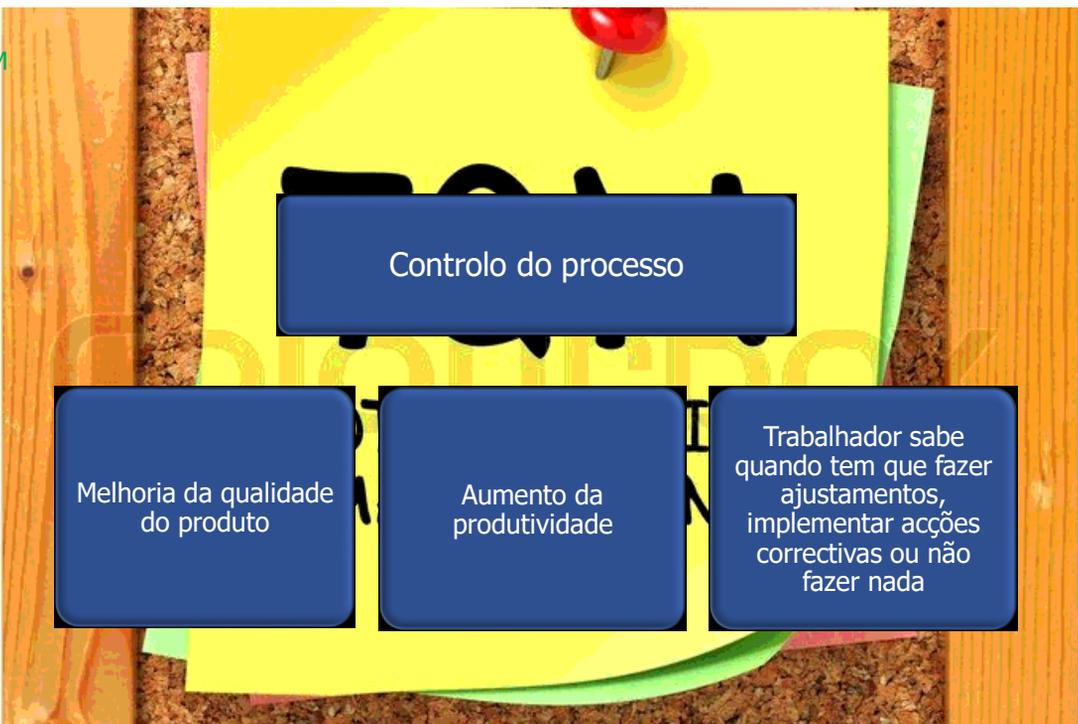
TQM



TQM



TQM



TQM

Seven Tools for TQM

Tools for Generating Ideas

(a) *Check Sheet*: An organized method of recording data.

Defect	Hour							
	1	2	3	4	5	6	7	8
A	///	/		/	/	/	///	/
B	//	/	/	/		//	///	
C	/	//				//	///	

(b) *Scatter Diagram*: A graph of the value of one variable vs. another variable.

(c) *Cause and Effect Diagram*: A tool that identifies process elements (causes) that might effect an outcome.

```

    graph LR
      subgraph Cause
        M1[Material]
        M2[Methods]
        M3[Manpower]
        M4[Machinery]
      end
      Cause --> Effect[Effect]
  
```

Tools to Organize the Data

(d) *Pareto Charts*: A graph to identify and plot problems or defects in descending order of frequency.

(e) *Flow Charts (Process Diagrams)*: A chart that describes the steps in a process.

Tools for Identifying Problems

(f) *Histogram*: A distribution showing the frequency of occurrences of a variable.

(g) *Statistical Process Control Chart*: A chart with time on the horizontal axis to plot values of a statistic.

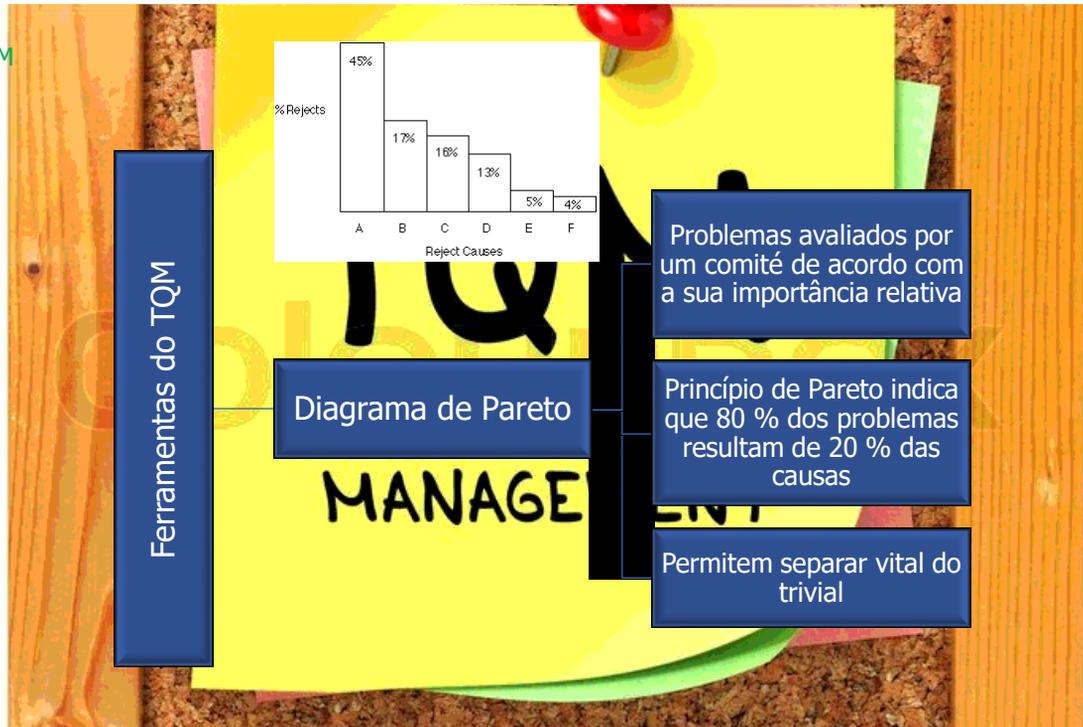
TQM

Ferramentas do TQM

Brainstorming

Gerar todas as possíveis causas de um dado problema

TQM



TQM



TQM

Ferramentas do TQM

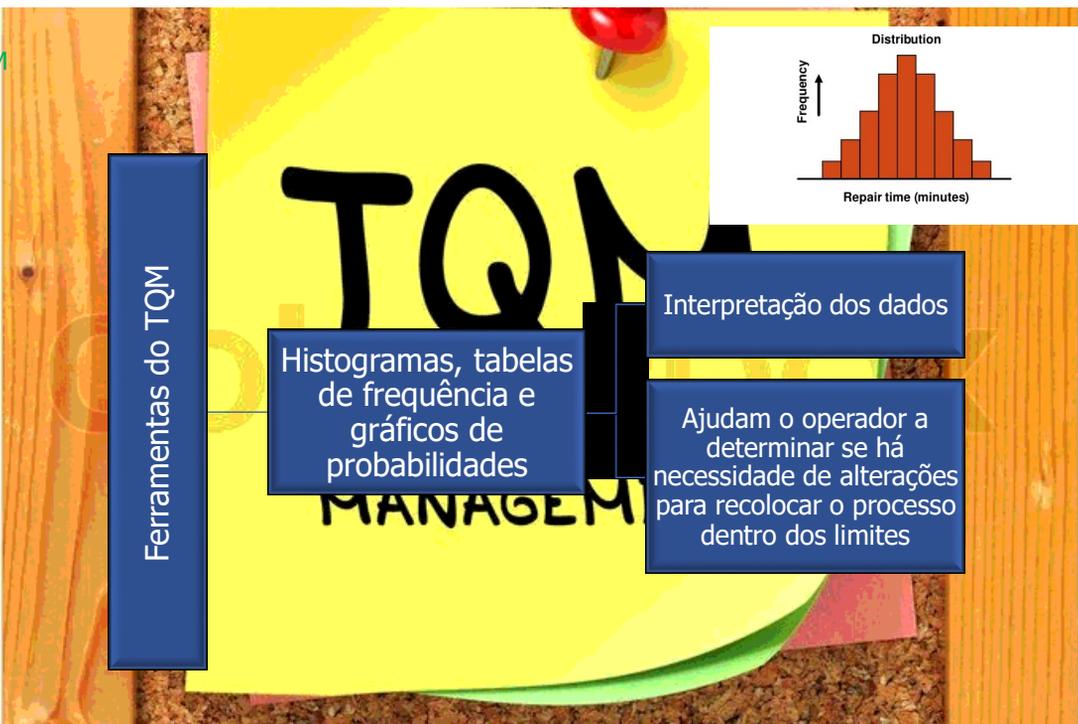


Diagrama de causa e efeito

Separar nos diversos componentes para avaliação por um comitê

TQM

Ferramentas do TQM

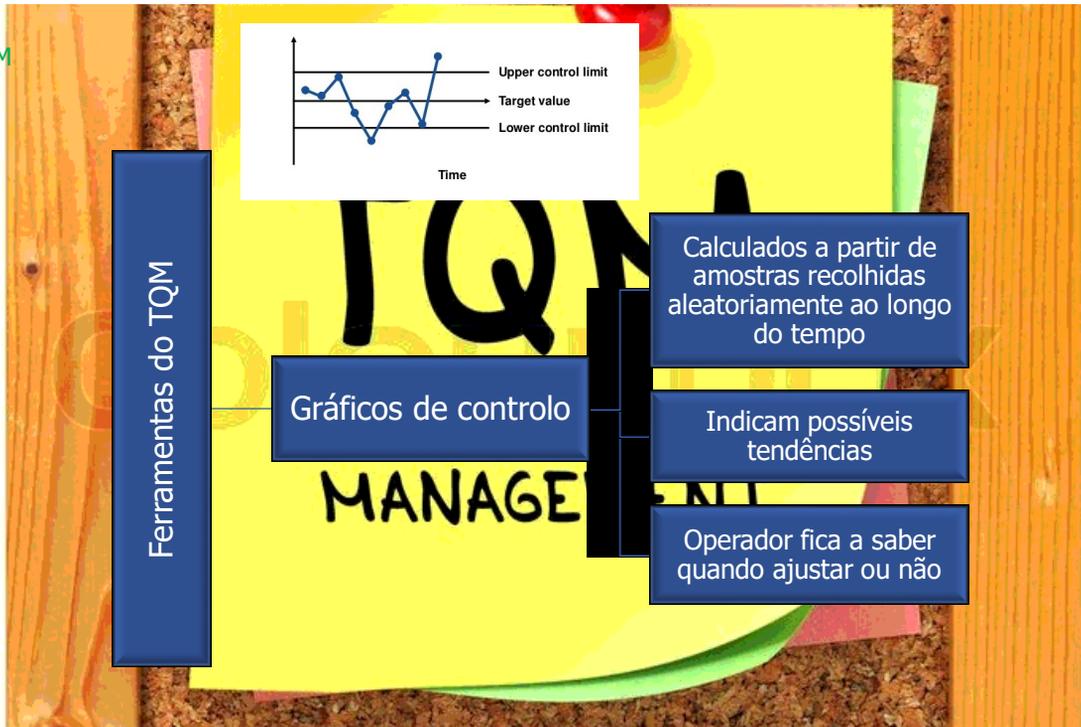


Histogramas, tabelas de frequência e gráficos de probabilidades

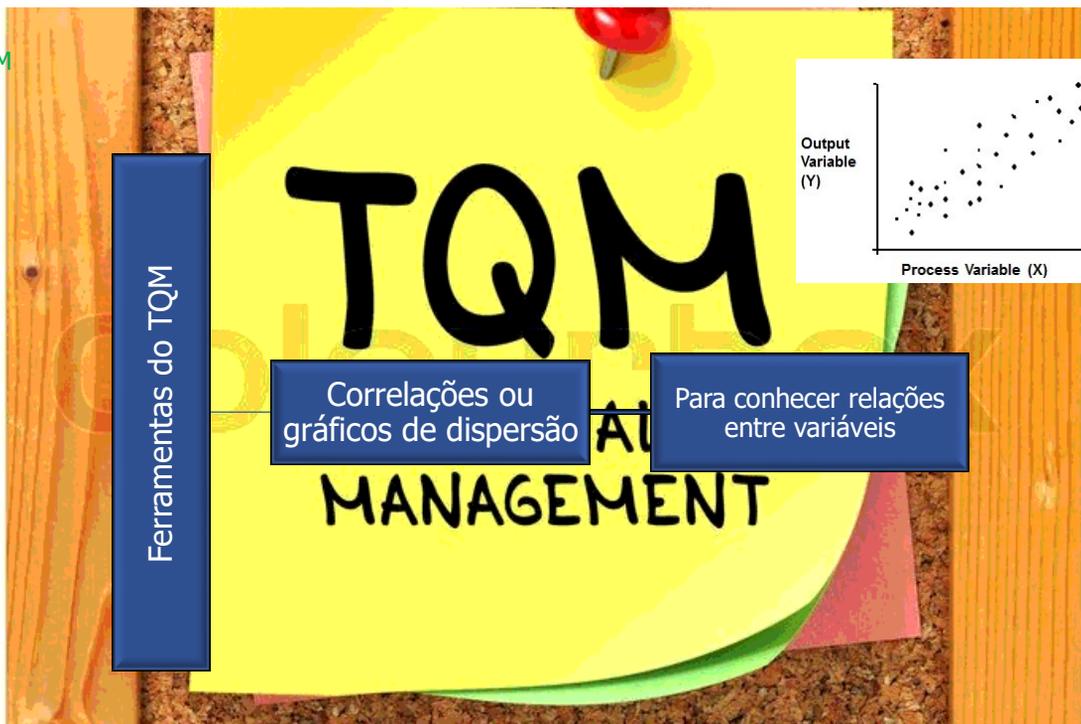
Interpretação dos dados

Ajudam o operador a determinar se há necessidade de alterações para recolocar o processo dentro dos limites

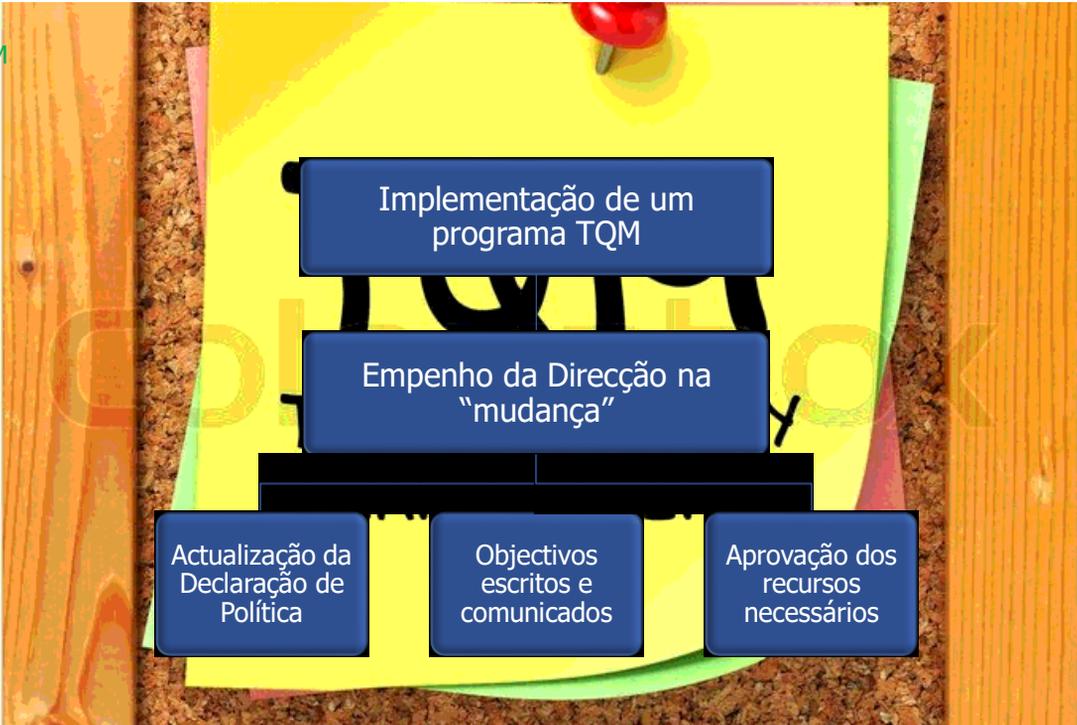
TQM



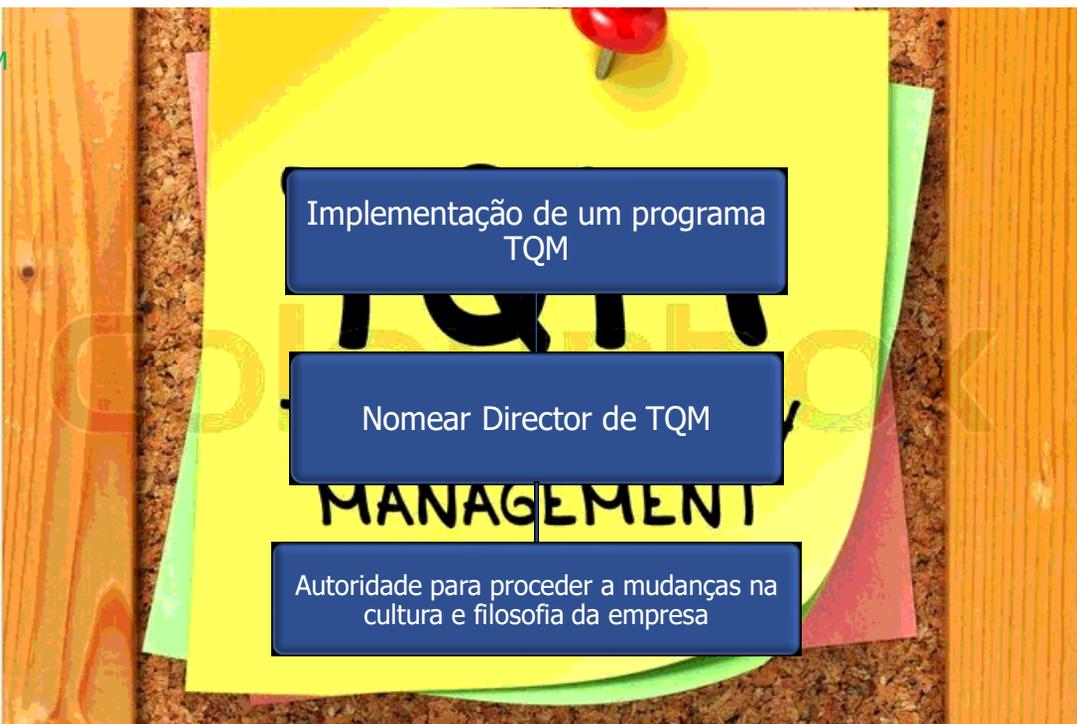
TQM



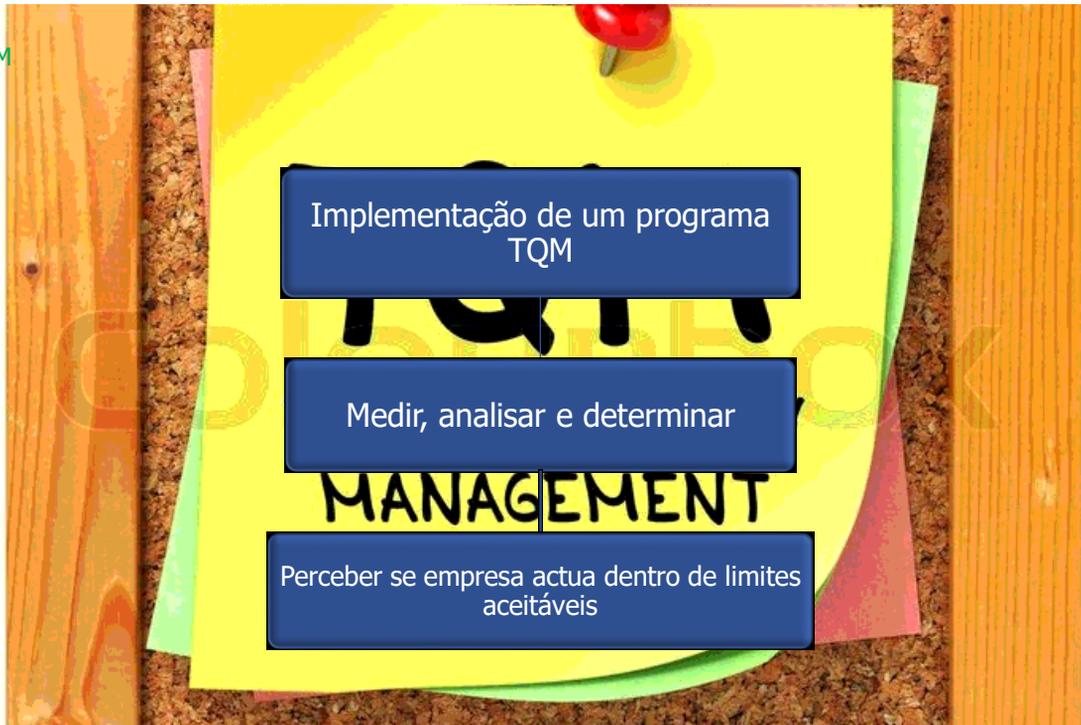
TQM



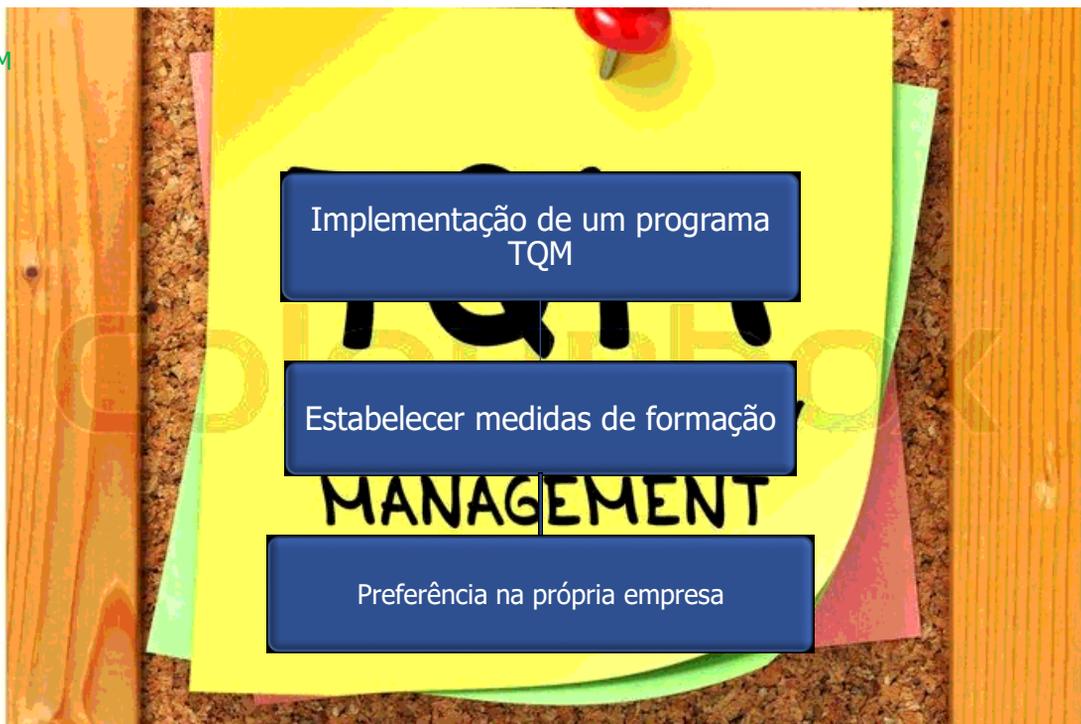
TQM



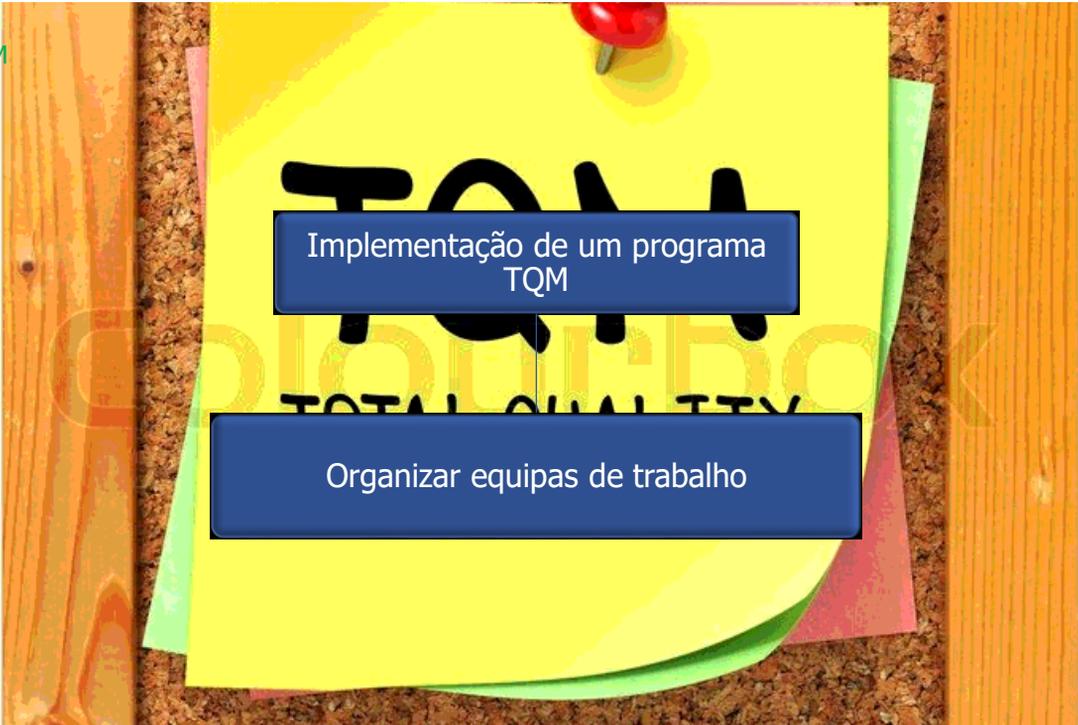
TQM



TQM



TQM



TQM



TQM



TQM

