

marcos@phenixconsulto



PHENIX
Consultoria Especializada

Marco S Moura
Page 1



“Segurança tem que ser um valor organizacional, porque se for apenas prioridade, em algum momento vai perder o seu

valor”
João Ricardo B. Lafraia - Petrobras

2002

“Mas a confiabilidade tem que estar na visão organizacional, como as plaquetas de sangue -

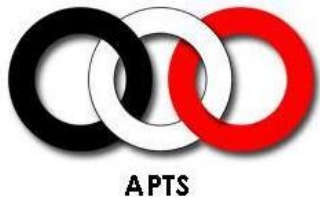
indissociável”
Marcelo Moura -

Light 2010

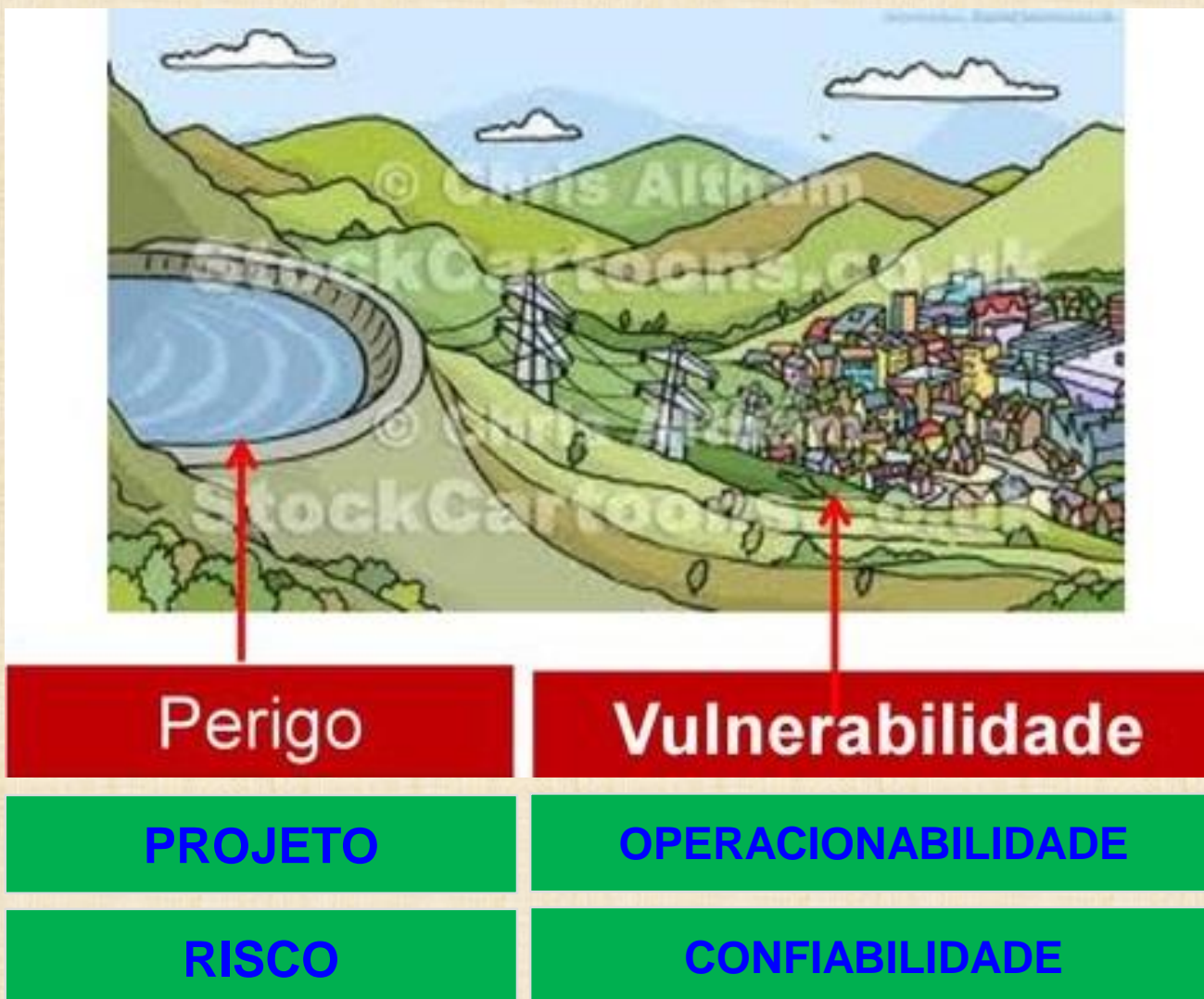


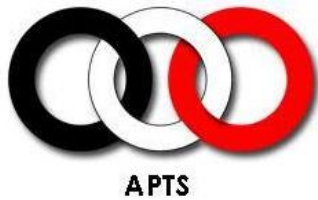
Foto

Du Zuppani



O Ponto de Análise

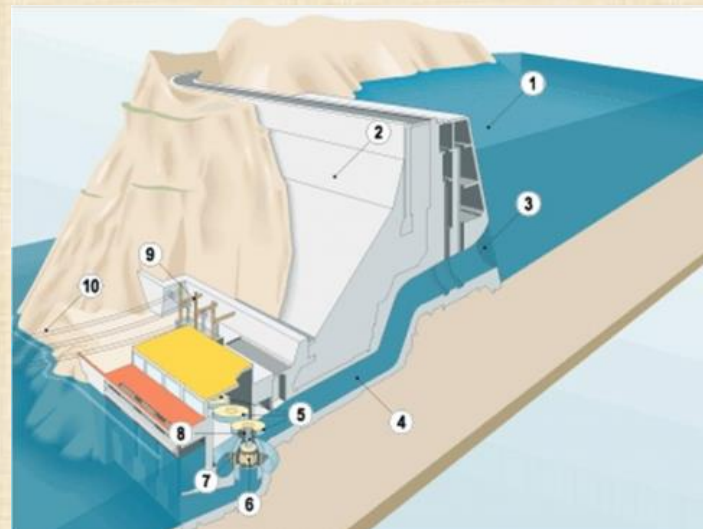
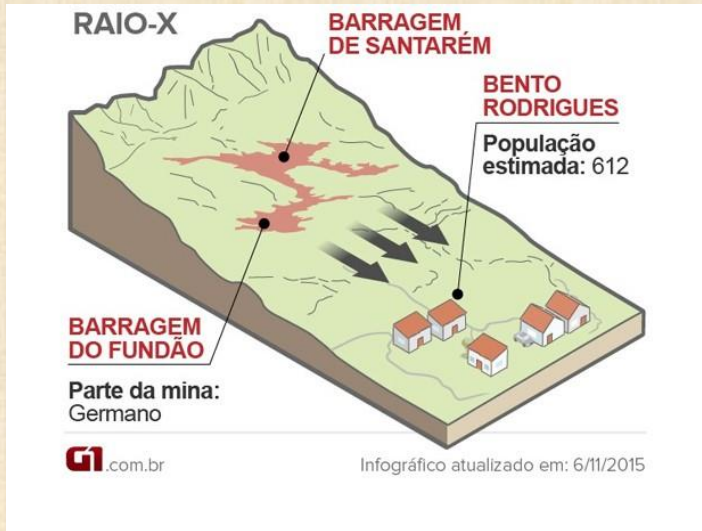


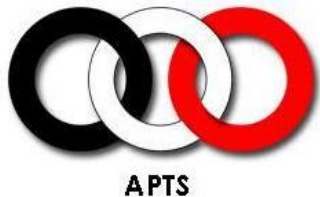


APTS



Tipos

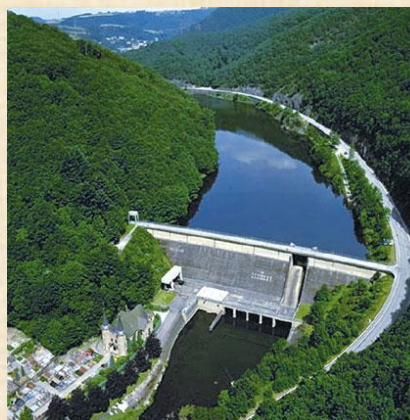




Processos de Confiabilidade



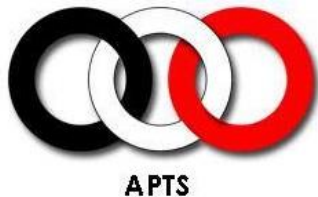
**Barragem sul
Ituporanga**



O fracasso de Aimala Falls



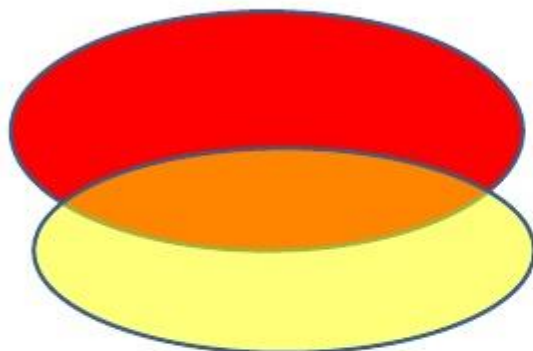
**Barragem da CSN
Congonhas**



O Conceito de Risco



CONCEITO DE RISCO



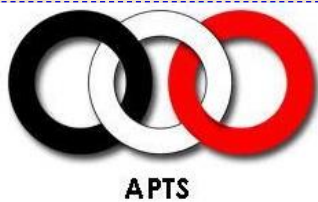

PERIGO/SUSCETIBILIDADE


OCUPAÇÃO/VULNERABILIDADE

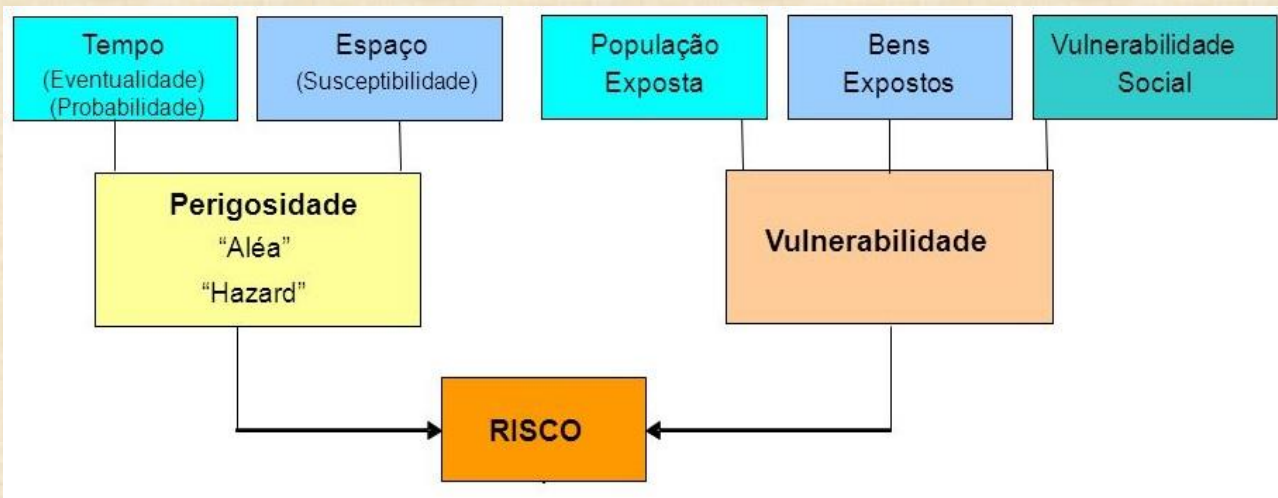

RISCO

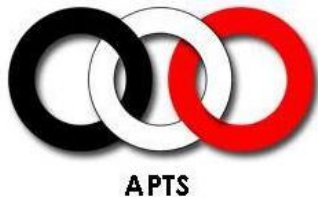
$$R = P V D \left\{ \begin{array}{l} P = \text{PERIGO} \quad \text{Probabilidade de ocorrência} \\ V = \text{VULNERABILIDADE DO ELEMENTO} \\ D = \text{DANO POTENCIAL} \quad \text{conseqüências} \end{array} \right.$$

P exprime a possibilidade de ocorrência e a magnitude (nível de atingimento e abrangência espacial) dos eventos de inundação e enchentes



O estado da arte





Os caminhos



ANEEL 696/2015

DNPM 70.389/-2017

ANA 236/2017

Lei 12.334/2010

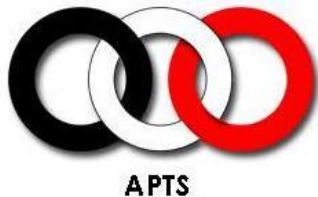


**Gestão da
Confiabilidade
de Barragens
Tom Butler
ICMM
Final de 2019**

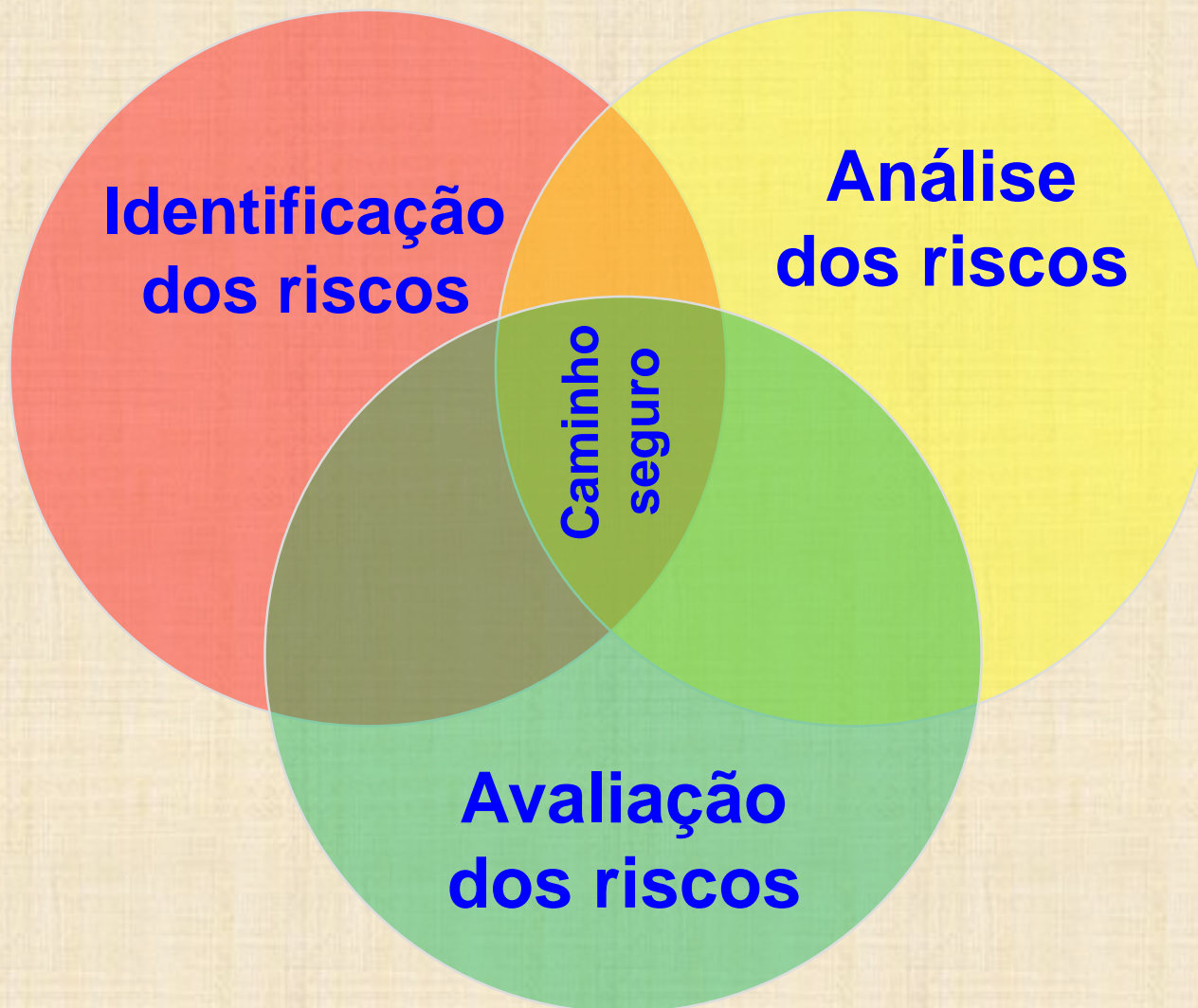
ISO 31.000/2009

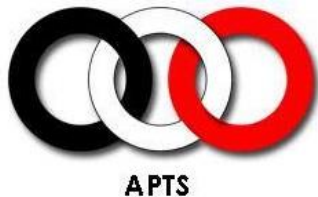
PAS 55/2008

ISO 55.000/2014



Processo de Gestão de Risco

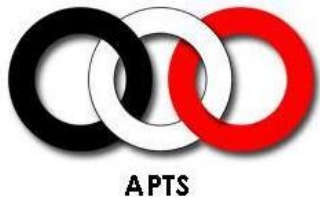




Processo de Gestão de Confiabilidade

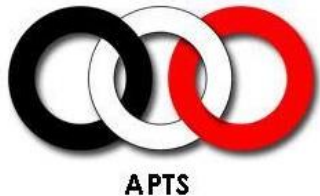


Estrutura de Governança Segura



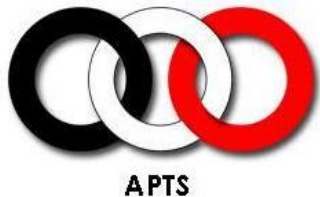
Perspectiva





Sincronía





A Visão faz a diferença





“Observar o Risco e
prevenir, é a melhor ação
para voar”

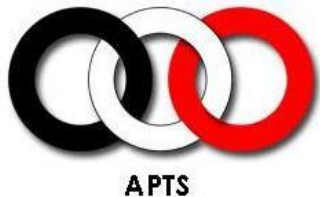
“Mas testar a
confiabilidade do
sistema ao longo do
tempo, é uma
segurança segura
para seu voo”

**MarcoS
Moura**

Du Zuppani

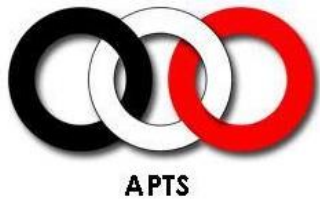
Foto





A Chama acesa ...





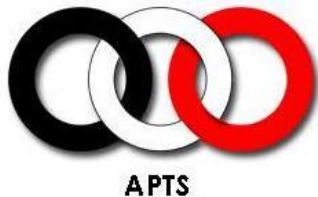
Agradecimentos ...



どうもありがとうございました

DOMO ARIGATO GOZAI MASHITA

MUITÍSSIMO OBRIGADO



Eu Aplaudo Todos VOCÊS



Marcos Siqueira Moura

**Palestrante, Consultor Técnico e
Mentor de Engenheiros e
formandos**

E-mail: phenix.mo.especializada@gmail.com