

Quantifying the Value of Structural Health Monitoring

EasyVol: Ingredients

Teeth Bridge

DECISION MAKER

You!!!

Objective: Get well soon with least efforts!



DECISION MAKER

Bridge operator

Objective: Safe and functional structure with the least expected costs



- Every day eating
- Eating too much sugar
- o Breaking due to a fall

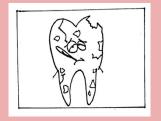


EXPOSURE

- o Operation (traffic), Natural actions (temperature, wind...)
- Aggressive environment, climate change
- Extreme events

DAMAGE

- o Stains, small cracks, cavities
- o Gums inflamed
- Wear and tear

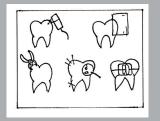


DAMAGE

- o Corrosion, small cracking from loading
- o Deflections, excessive vibration
- o Fatigue

ACTIONS

- Brush teeth regularly
- o Go to the dentist for a check up
- Do x-rays of teeth





ACTIONS

- Preventive or corrective maintenance
- Replace part or the entire bridge
- o Do nothing

MONITORING

- Our nervous system (for free)
- o Go to the dentist for a
- Do x-rays of teeth



- check up



MONITORING

- Visual inspection
- Non-Destructive Testing
- Day Monitoring

CONSEQUENCES

- You don't look so good...
- You are in pain
- You cannot eat properly
- o Tou cannot eat at all
- Your teeth fall out



CONSEQUENCES

- Unsafe appearance...
- o Excessive deformation
- Traffic restriction
- The bridge has to close
- The bridge collapses!

