



**CSEM AM parts**  
**damping**



smart

advanced manufacturing

## CSEM's PROFILE

We are a public-private, non-profit Swiss **technology innovation center**

We enable competitiveness by **developing and transferring world-class technologies to the industrial sector**



**1984**  
FOUNDED



**600**  
SPECIALISTS  
in 2023



**100.4**  
MIO TURNOVER  
in 2022

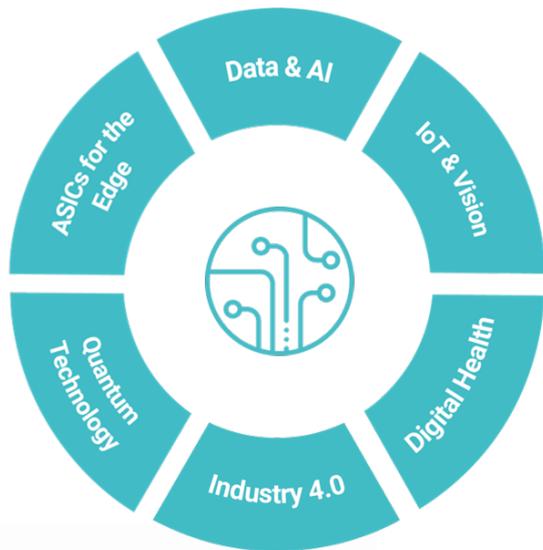


**> 50**  
VENTURES  
since 1984

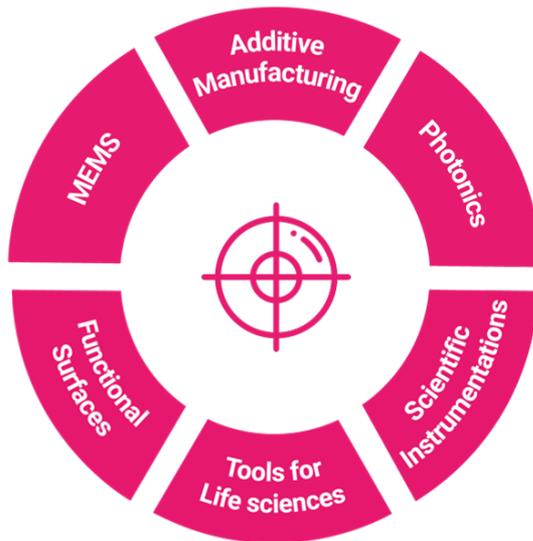


# CSEM's PROFILE

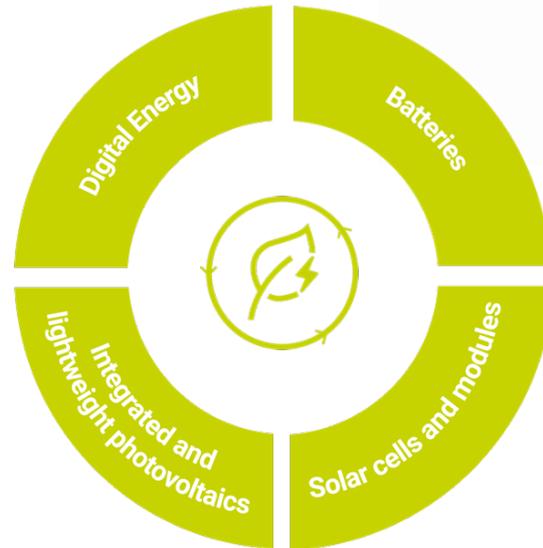
## Digital Technologies



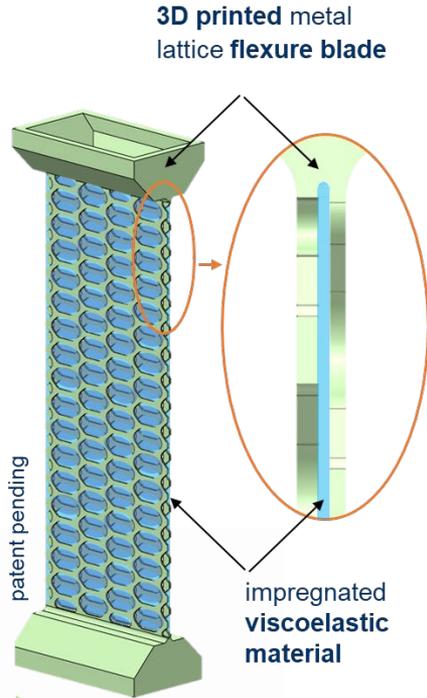
## Precision Manufacturing



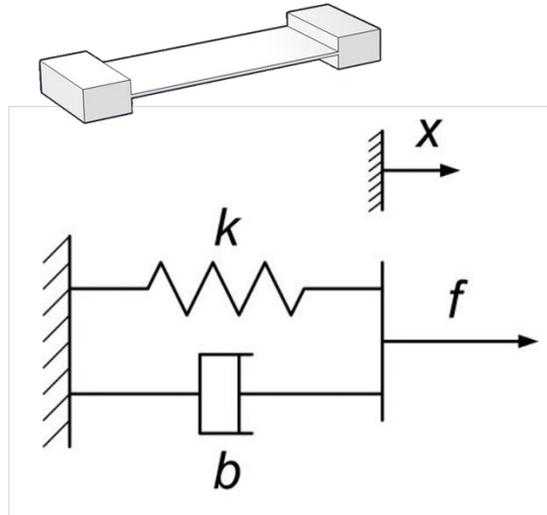
## Sustainable Energy



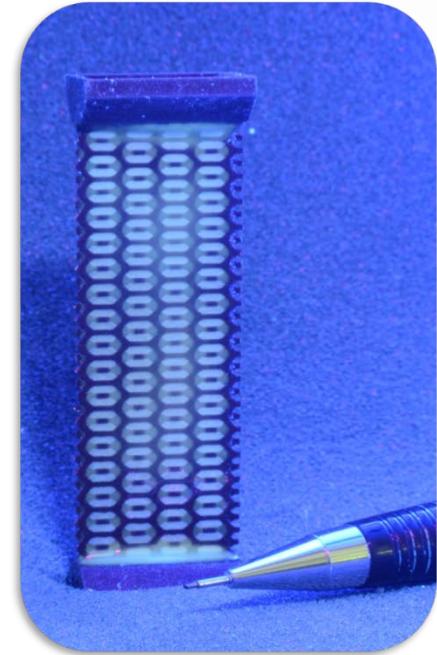
# Damping element



- flexure blade deformation
- elastomer deformation
- energy dissipation
- damping



Impregnated flexure blade under UV light

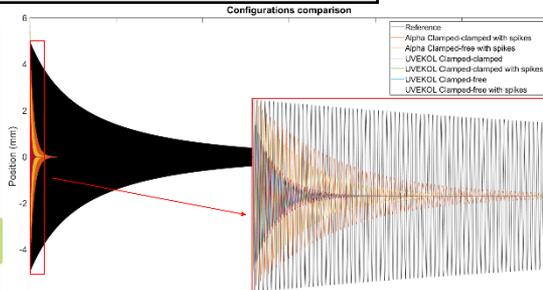
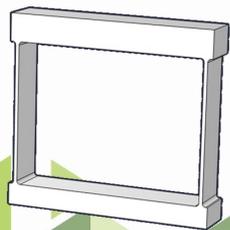


# Damping element

## UNDAMPED



## DAMPED



$Q$  reduced 64.2 times

$c$  increases 97.5 times

## **24 month activities**

### **Technical opportunities**

Bring damping in flexure-based mechanism

### **main challenges**

Blade structure printing

Visco elastic material casting



## PARTNERS

**Current**  
CSEM

**Partner search:** -

SME that may benefit from the technology  
RTO with printing capabilities



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