



INTEGRATED DYNAMICS ENGINEERING

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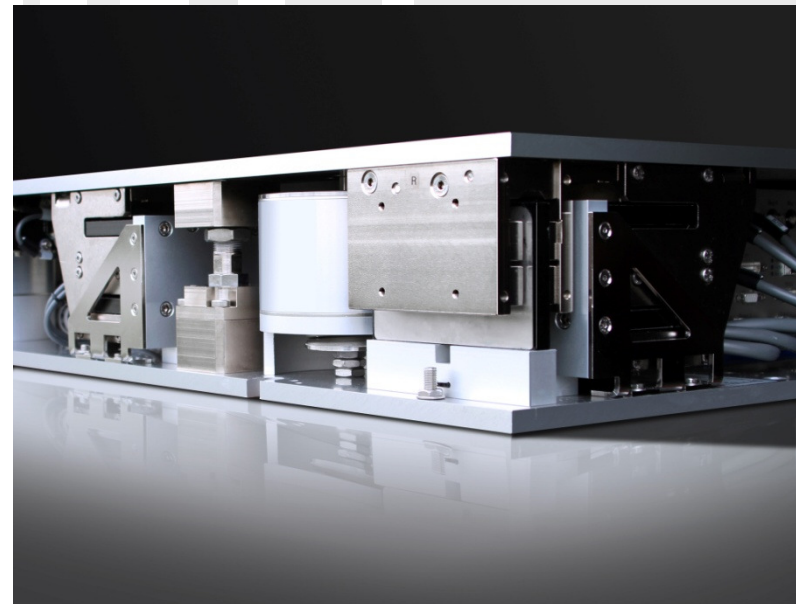
# Vibration Isolation for 450mm Platform (VIP450)

Integrated Approach to a  
Metrology Platform Design

22 May 2012

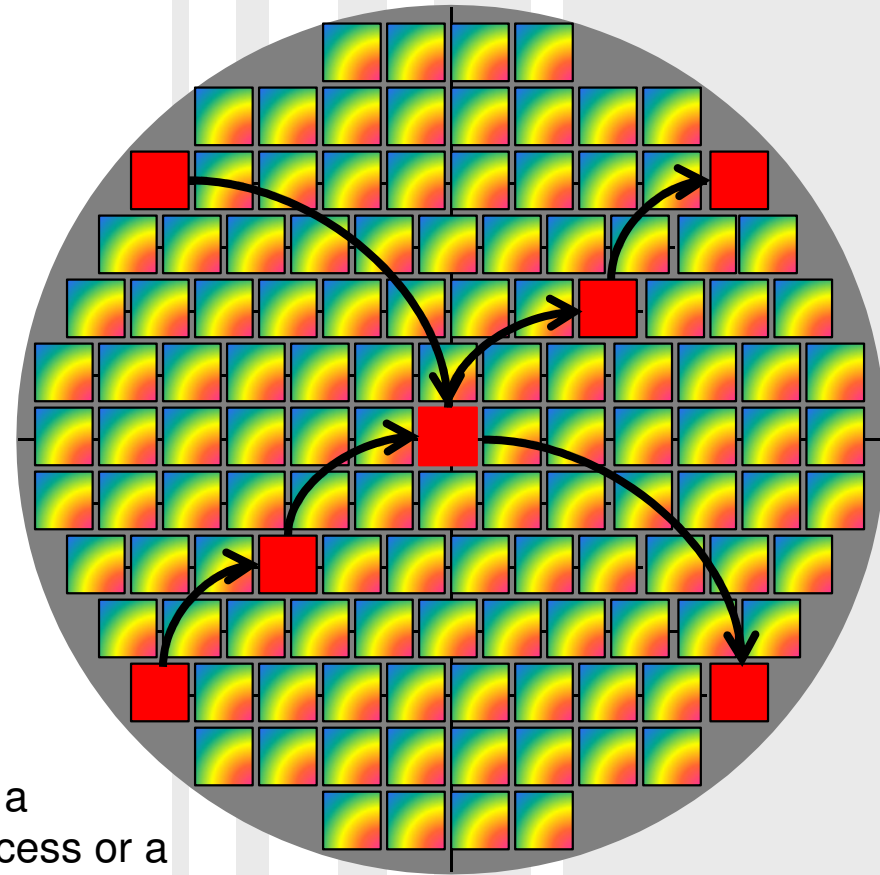
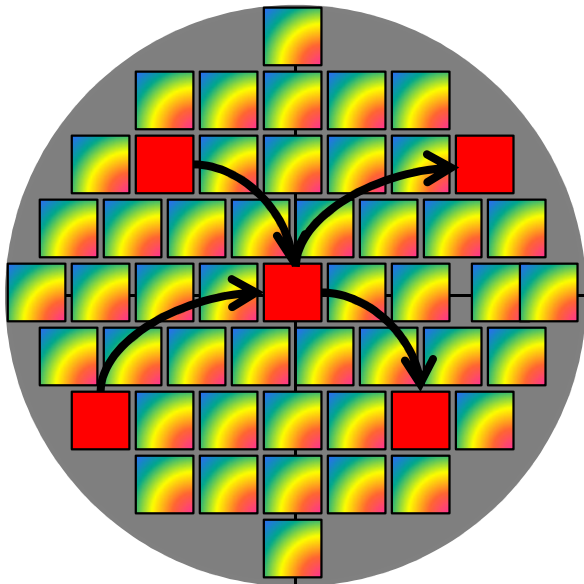
# IDE introduction

- Environmental control
  - (Active) Vibration Isolation
  - Magnetic disturbance reduction
  - Acoustic disturbance reduction
- For 20 years key supplier for Semiconductor industry
- Germany based
- World wide network
- Part of the Aalberts Industries group



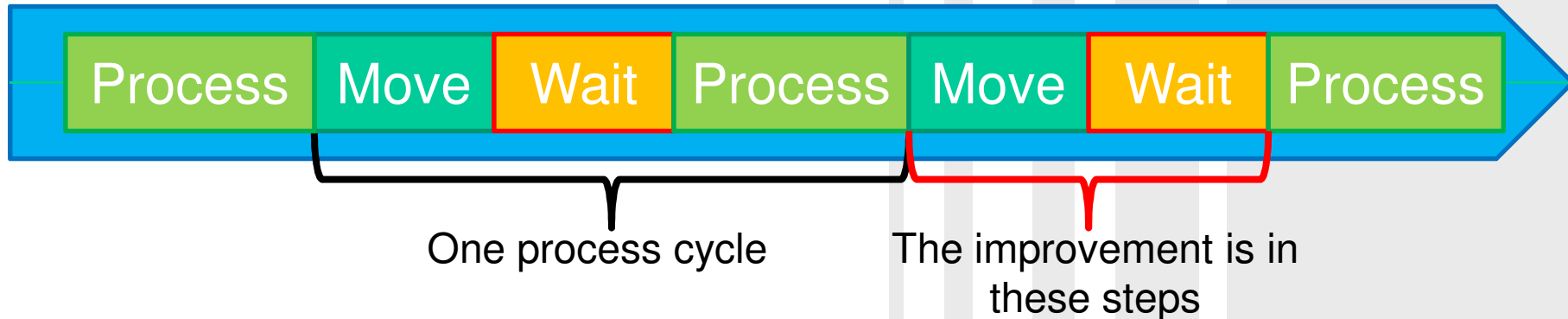
# Problem description

450mm ask for or more steps or bigger steps while total throughput (wafers/hour) should stay the same.



A step can be a metrology process or a lithographic process

# Detailed consideration

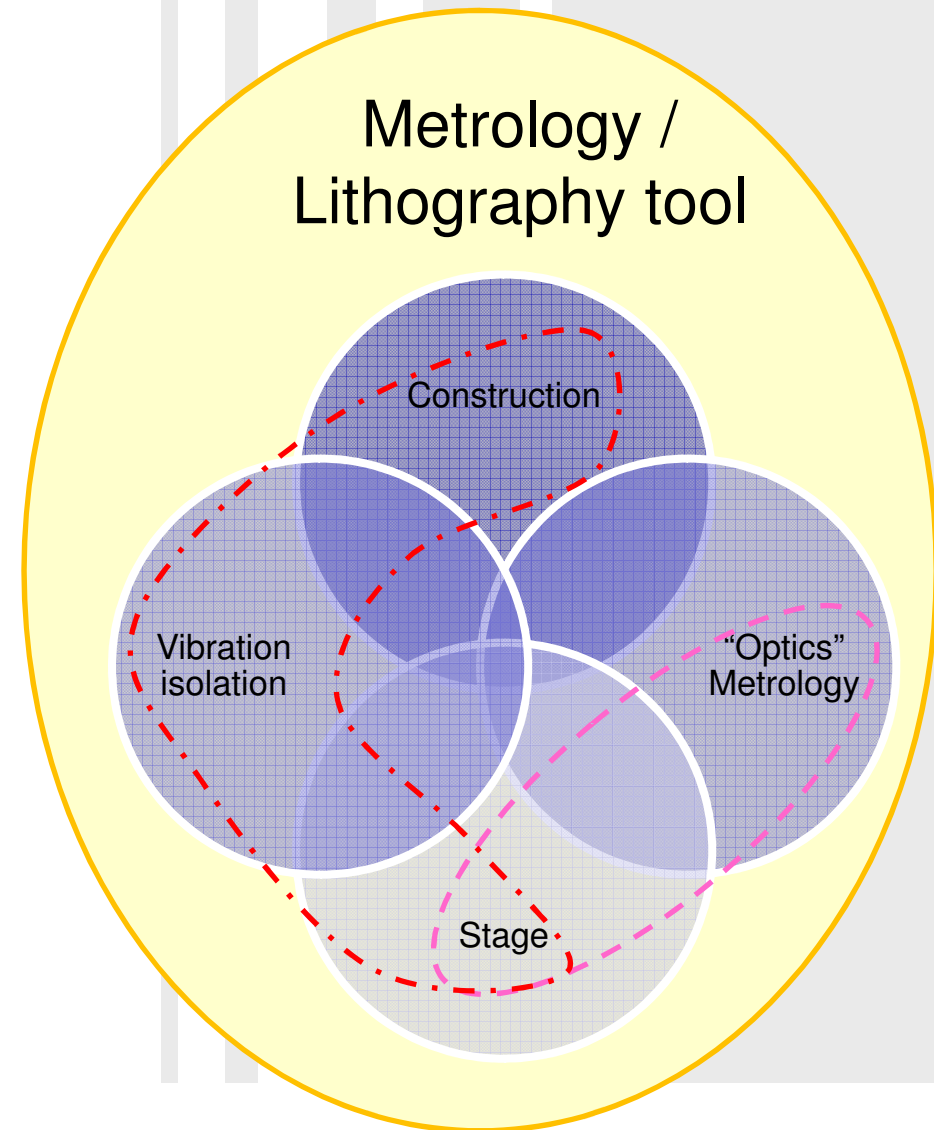


- To increase the throughput should the cycle time be reduced
  - Moving faster means more forces and vibrations in the system
  - The wait time is used to guarantee that the system is silent, not vibrating before the metrology or lithography process is started
  - The process time can often not be shortened

# Project partner overview

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- There is always strong relation between “optics” and stage design
- To reduce the cycle time is a strong relation between stage, vibration isolation and (mechanical) construction design needed



# Goal

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- Structural partner ship with:
  - Metrology / Lithography tool manufacturer
  - Stage supplier
  - Vibration isolation
- Development Metrology/Lithography Platform for 450mm
  - High (speed) performance
  - Low energy consumption