



imec

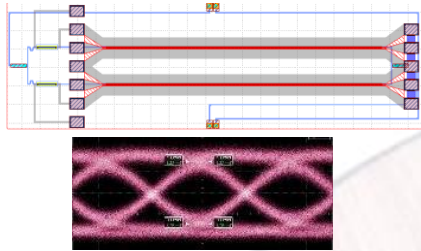
PHOTONICS PLATFORM FOR RANGING AND TELECOM
APPLICATIONS

XAVIER ROTTENBERG, PIET DE MOOR

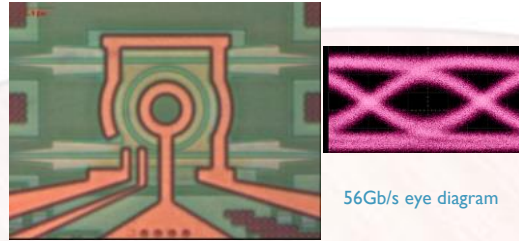
IMEC'S SI PHOTONICS PLATFORM

STATE OF THE ART MATURE AND VERSATILE PLATFORM

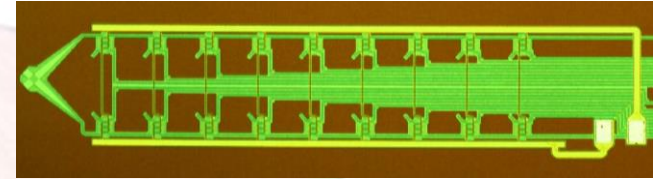
56G Silicon Mach-Zehnder Modulator



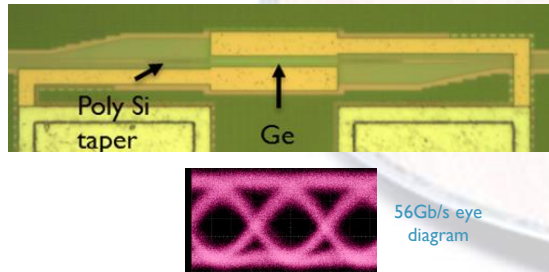
56G Silicon Ring Modulator



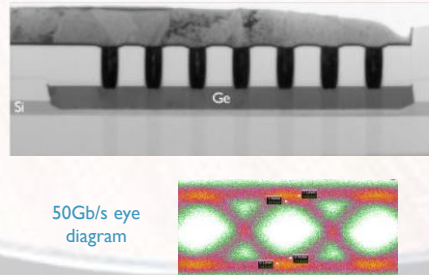
8+1-channel DWDM (De-)Multiplexing Filter



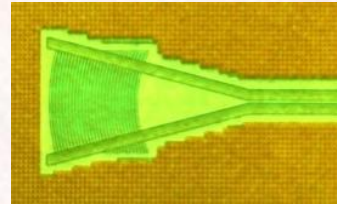
56G GeSi Electro-Absorption Modulator



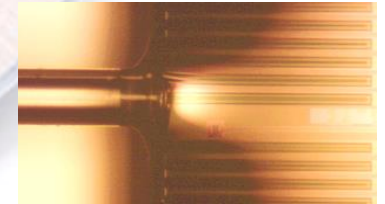
50G Ge Photodetector



Grating Coupler



Edge Coupler

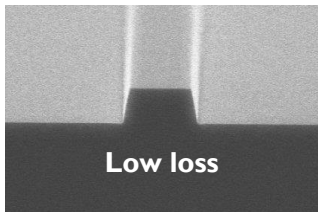


IMEC'S SIN PHOTONICS PLATFORM

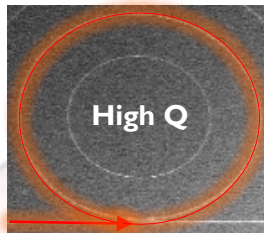
Available through PIX4LIFE for life sciences MPW

A LARGE LIBRARY OF EXPERIMENTALLY VERIFIED COMPONENTS IS AVAILABLE.

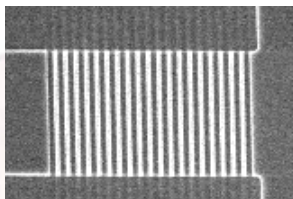
Waveguides



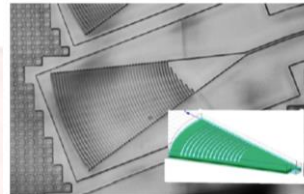
Ring Resonators



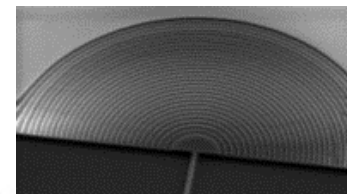
Fiber-to-WG



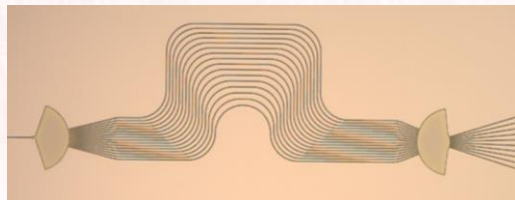
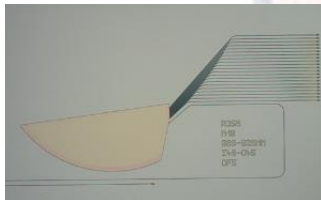
Low reflection



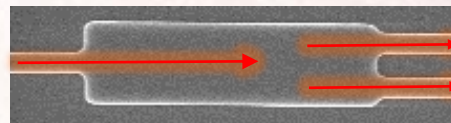
Focusing



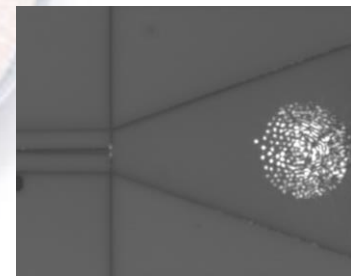
Basic spectrometers



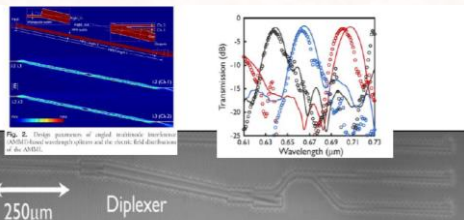
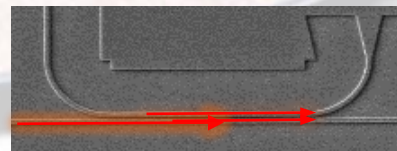
Multi-mode interferometer



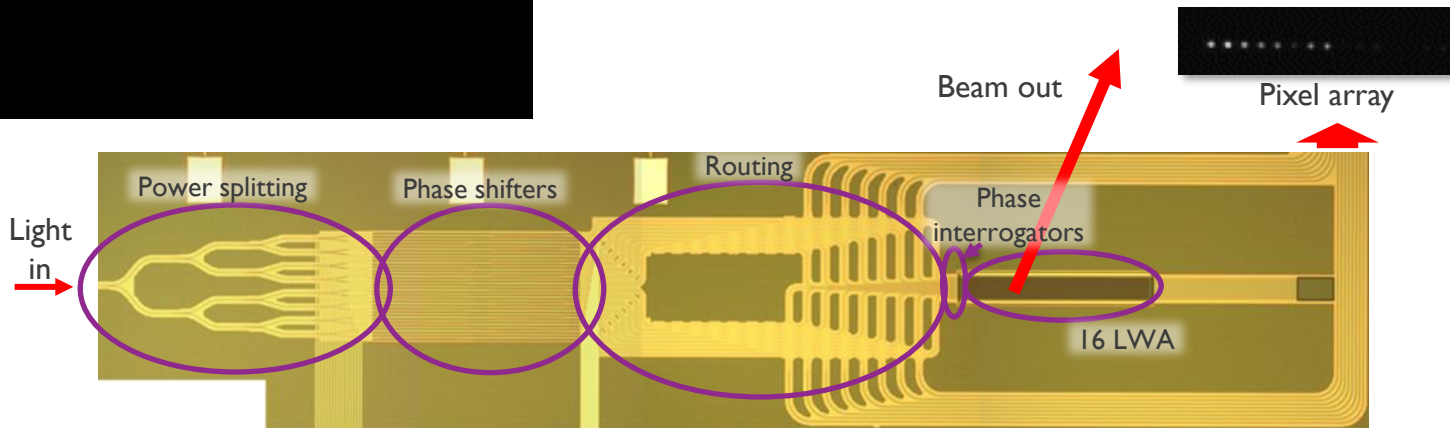
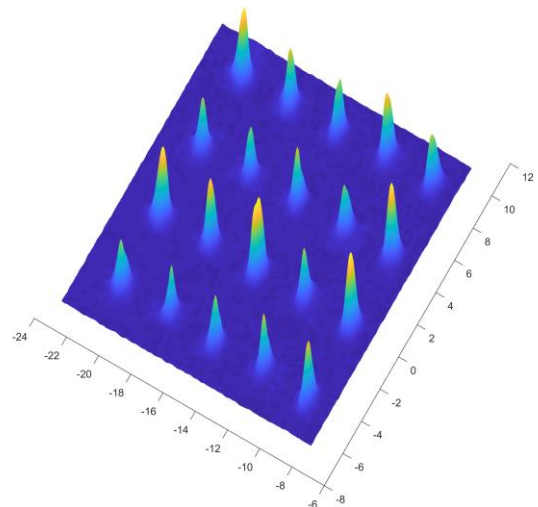
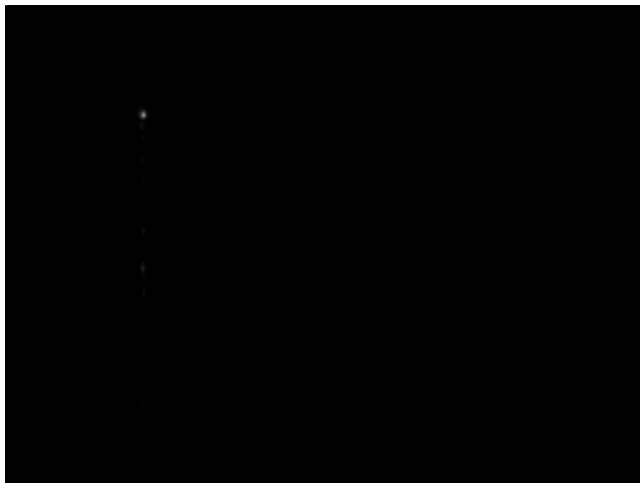
Pseudo-random



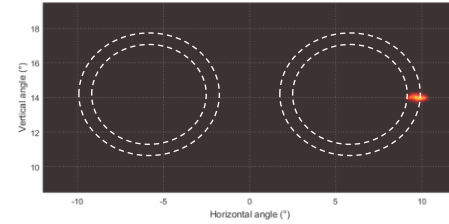
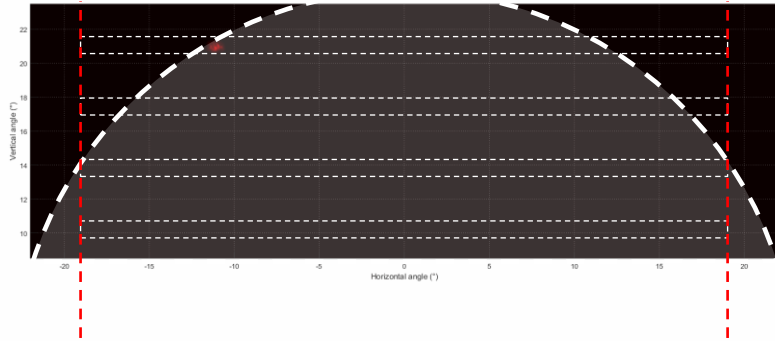
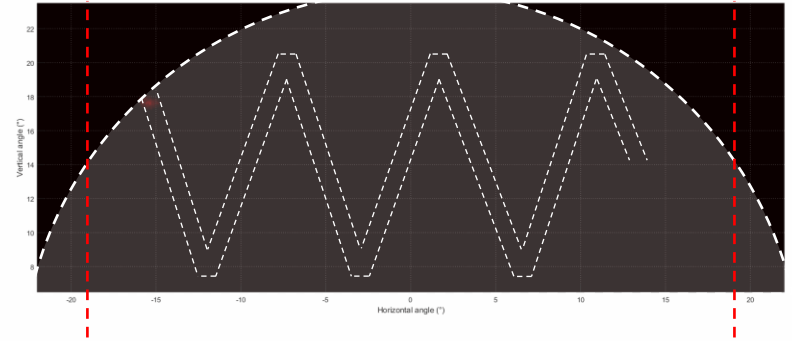
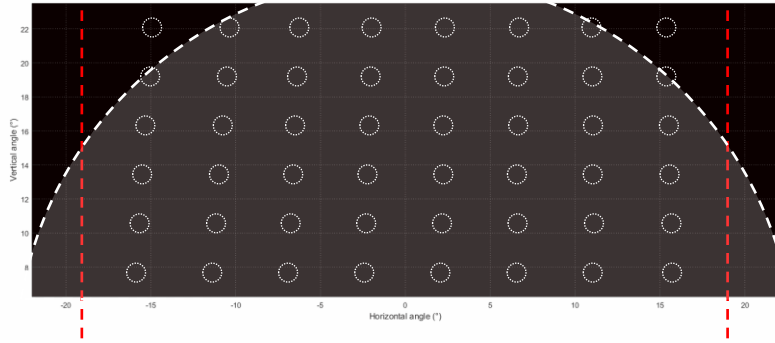
Evanescent coupler



ON-CHIP 2D OPTICAL BEAM SCANNER WITH INTEGRATED PHASE CORRECTION



2D STEERING DEMONSTRATION 40X15 DEG SCANNING

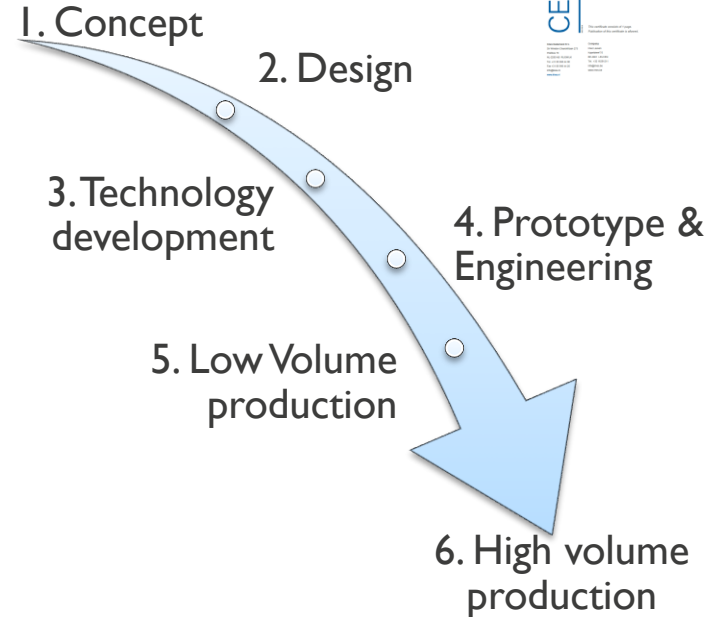


IMEC SPECIALTY COMPONENTS

WE TURN YOUR IDEAS INTO MANUFACTURABLE SOLUTIONS



- Mission
To develop manufacturable processing of new and challenging concepts of device or microsystems in a Si CMOS production line.





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