



embracing a better life



# ENGINEERING YOUR IDEAS INTO GREAT PRODUCTS

Are you looking for a trusted partner to engineer your prototypes and products to perfection? A partner with a focus on IoT solutions, smart imaging, and conformal structures? A partner that offers custom solutions and services that are hard to find anywhere else on the market?

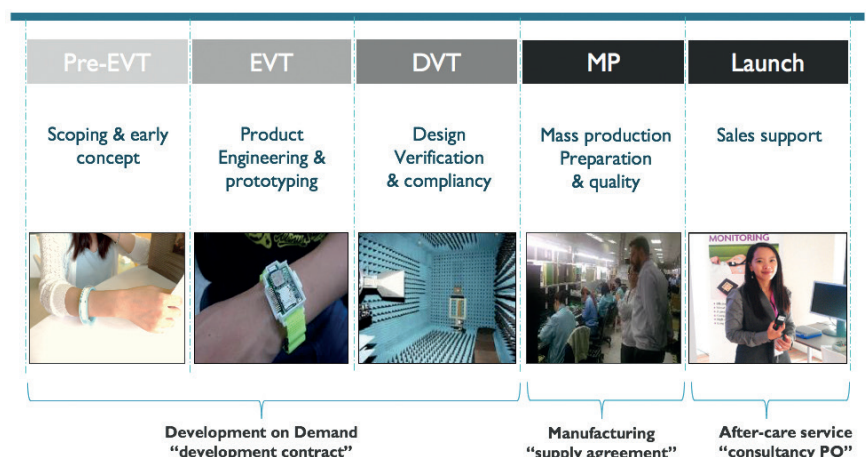
Choosing imec.engineering for your next product development means tapping into imec's unique engineering skills, broad IP portfolio, 30 years of R&D in semiconductor-based systems, and access to a global network of partners in the entire semiconductor and system integration value chain.

With this background, imec.engineering takes your ideas and transforms them into valuable assets. We apply the best-suited technologies available and offer you a fast-track into your market.

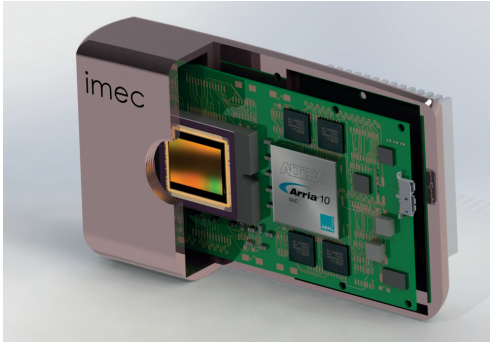
In today's fast-paced markets, imec.engineering is a reliable development partner for the long-term and for multiple product generations. Working with imec.engineering reduces your risk and leads to the greatest ROI in terms of time, resources, and investment.

## PROVEN APPROACH

Imec.engineering offers full turnkey solutions or phased projects – always with clearly defined goals and deliverables.



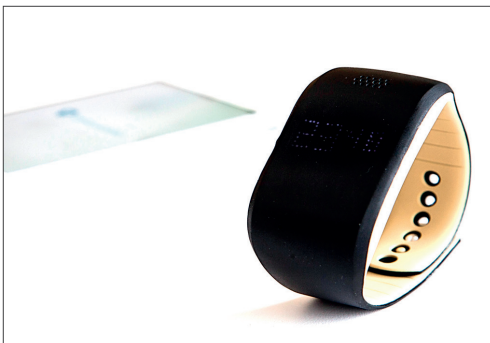
## SOME OF OUR SUCCESSFUL DESIGNS



Transforming high-quality image to medical OCT (optical coherence tomography)



Flexibly interconnected bare-die microLEDs



Wrist band to support senior quality of living



Stereovision for smartphone

## WORLD-LEADING EXPERTISE

Imec.engineering has proven and acclaimed top expertise in these three areas. To engineer optimal solutions, we combine our unique technology and expertise with best-in-class components:

### IMAGING SOLUTIONS

#### OPTICAL ASSEMBLIES

- Discrete lenses, collimators, filters,...
- Glass, Plastic, Quartz,...
- Zemax modelling, DfX, tool release

#### EMBEDDED SOFTWARE

- DSP & image processing
- Image quality optimization
- GPU, FPGA real-time IP implement

#### CAMERA PLATFORMS

- Custom made imaging solution
- Complete camera housing design
- Stereovision, computational image

### IoT SMART DEVICES

#### SENSOR SELECTION

- Mixed signal interfacing
- Best technology selection, modelling
- Performance evaluation

#### EMBEDDED SOFTWARE

- PHY, API, DSP signal processing
- Wireless protocol
- SDK, cloud handshaking

#### DEVICE PLATFORMS

- Multi-sensor reference designs
- Complete functional modules
- Towards standards compliancy (FDA, EN, IEC, CE)

### CONFORMAL STRUCTURES

#### STRUCTURE DESIGN

- Finite element modelling
- Best technology selection
- Functional application design

#### PROTOTYPING

- Mesh structures, sensor arrays
- Functional sub-modules
- Wafer level components

#### INDUSTRIAL TOOL DESIGN

- Semiconductor process flow R&D
- Manufacturing tool design
- Statistical evaluation, FMEA

## PROVEN TRACK RECORD ON ALL STAGES OF ENGINEERING, INCLUDING:

- Valuable, differentiating IP and technology (e.g. image sensors)
- Broad integration expertise backed by global leader in R&D
- Proven methodology to build reliable, high-quality printed-circuit boards
- In-house design of mission-critical embedded software
- In-house, fully-equipped R&D lab
- Access to world's premier manufacturers, with imec.engineering in control

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