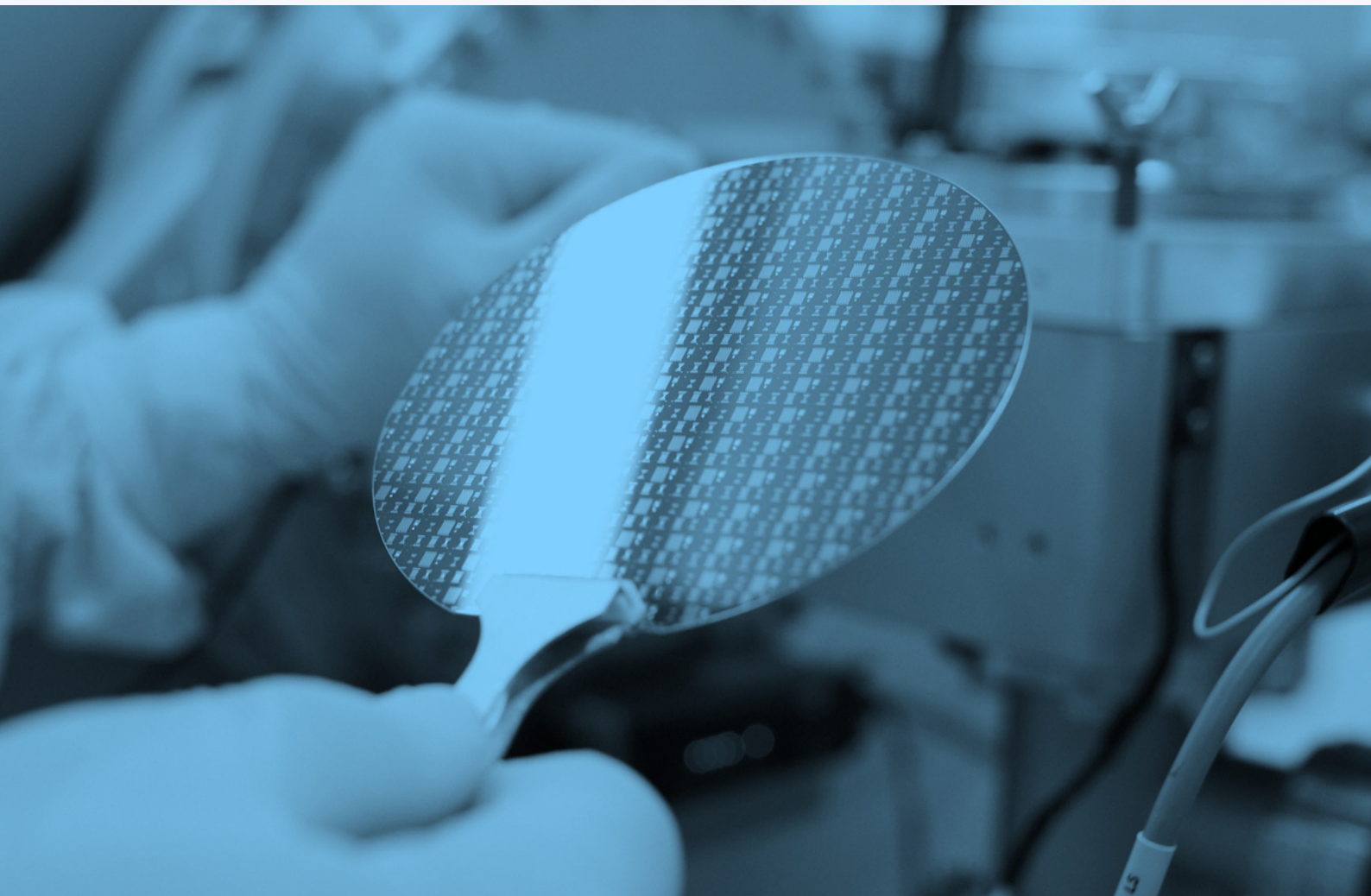




TECHNOLOGICAL PROCESSES

FROM PROCESS SPECIFICATION TO FINISHED COMPONENT

Semiconductor technology and integrated photonics

LAYER
DEPOSITION

LITHOGRAPHY

ETCHING &
IMPLANTATION

BACK-END &
INSPECTION

CLEAN-ROOM PROCESS EXECUTION FROM CONCEPT TO COMPONENT

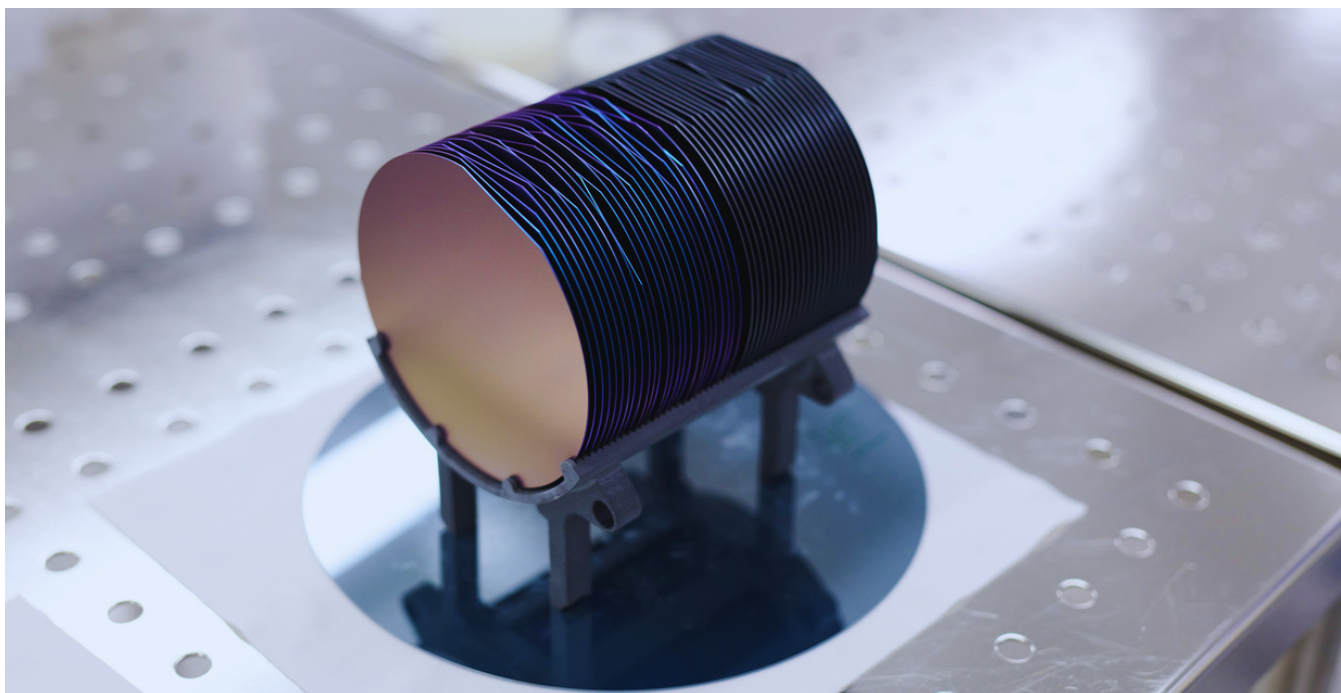
01 • INTEGRATED ENVIRONMENT

A complete process path without your own laboratory

Take a project from concept to a finished component.

We provide services for implementing technological processes in semiconductor technology and integrated photonics. Our facility enables projects to be carried out even without the client's own laboratory infrastructure.

Using our clean-room laboratory facilities, we carry out processes including layer deposition, lithography, etching, implantation, dicing and bonding. Work can be performed on substrates with a diameter of up to 8 inches.

CLEAN-ROOM
INFRASTRUCTURESUBSTRATES UP
TO 8 INCHESINDIVIDUAL PROCESSES
OR COMPLETE FLOW

CONCEPT

PROCESS
SPECIFICATION

FABRICATION

INSPECTION

FINISHED
COMPONENT

02 · CORE CAPABILITIES

Integrated semiconductor processing

PROCESS GROUPS

01

Layer deposition

Plasma-enhanced chemical vapor deposition, low-pressure chemical vapor deposition, physical vapor deposition, magnetron sputtering.

02

Etching

Wet etching, reactive ion etching, deep reactive etching, atomic layer etching, vapor etching.

03

Lithography

Photolithography, laser lithography, electron beam lithography.

04

Thermal processing

Thermal annealing in a hydrogen atmosphere, rapid thermal annealing.

05

Process inspection

Process inspection – optical microscopy, scanning electron microscopy, atomic force microscopy, surface scanning.

06

Back-end processes

Back-end processes - wafer dicing, grinding, chemical-mechanical polishing, wire bonding, optical and electronics packaging.

TYPICAL USE

01. Manufacture of electronic and optical devices: RRAMs, photonic integrated circuits, microlenses

02. The implementation of individual technological processes on samples.

03 • ENGAGEMENT

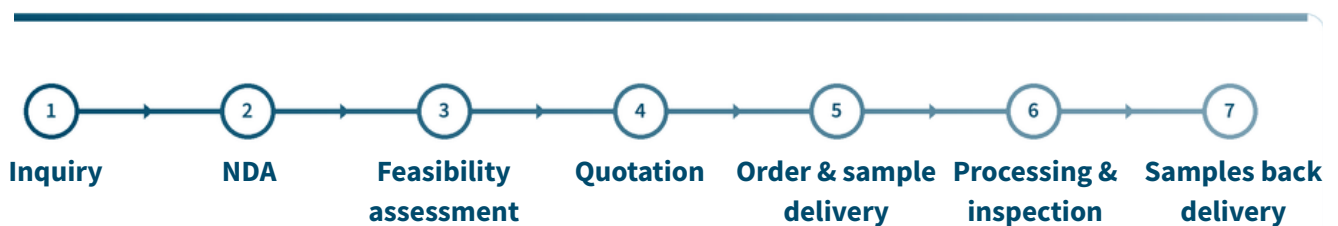
From inquiry to processed and inspected samples

YOU PROVIDE SPECIFICATION OF A PROCESS OR COMPONENT:

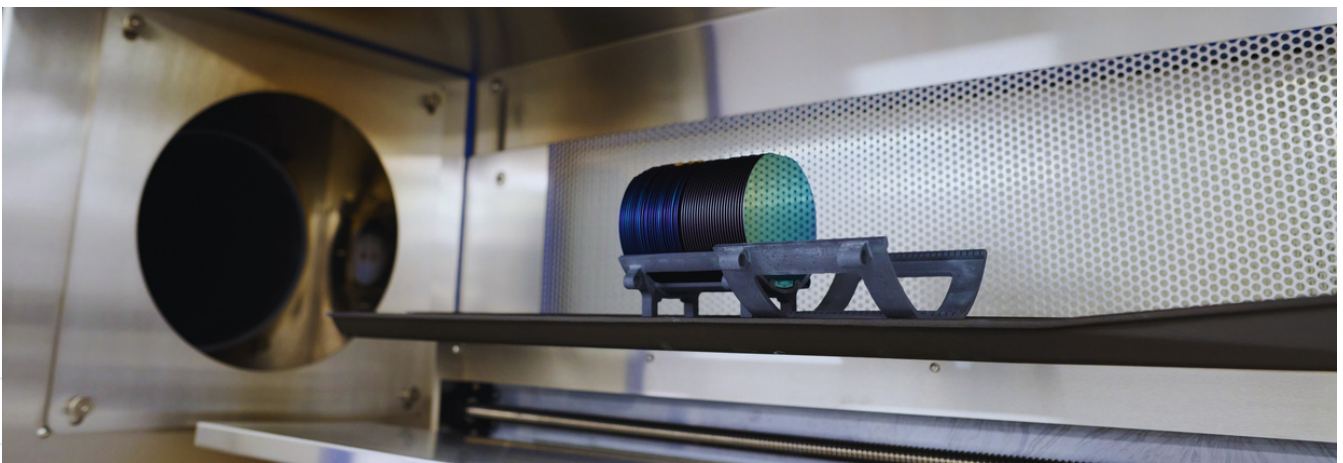
1	Layout
2	Description of required parameters
3	Material properties

HOW TO ENGAGE

7 - STEP PROCESS

**Scope note**

Each inquiry is considered on a case-by-case basis, depending on technical capabilities and the laboratory's workload.



04 • CONTACT

Let's define the right technological process

Discuss your process specification, component requirements, substrate and expected deliverables with the CEZAMAT SEMINSYS team.

CONTACT	SERVICE
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