

# Fab-to-Fab Transfer and Process Customization

## Fab-to-Fab Transfer

MHS offers a dedicated solution to Fabless Companies and/or Silicon Foundry Manufacturers consisting of the transfer of their proprietary processes to MHS's production facility. For Fabless Companies, this service allows the transfer of your specific process know-how for optimization and volume production. For Silicon Foundry Manufacturers, this solution offers the opportunity to free-up capacity in your own fabs and to define a second sourcing for your customers.

## Customers can rely on a 28-year expertise

Customers can rely on a 28-year expertise in process transfer including process modules and equipment installation, using our state-of-the-art and flexible production facilities. Our highly qualified engineering staff is ready to handle your process installation, improvement and control, with respect to our total quality and environmental systems.



“ More than 15 processes successfully transferred ”



### WHY CHOOSE MHS?

- Over 120,000 6 inches wafer starts per year capacity
- Clean room class 1-10 & 100
- Feature sizes 0.35 - 2.0  $\mu\text{m}$
- Optimized cost structure
- High flexibility in terms of number of processes and production volumes
- Highly qualified engineering staff (Process integration, Process step development, Yield enhancement, Device modeling and Design Kit set-up)
- Project management competence in the international environment
- Proven knowledge of risk analysis (FMEA), Design Of Experiments, and statistical methods
- Dedicated Prototyping services (Multi Project Wafer and Multi Layer Mask)
- Proven Expertise in CMOS and BiCMOS modular process integration with enhancement such as Non Volatile Memories, High Voltage Devices, Analog Devices, Sensing devices integration
- Total Quality and Environmental Management systems

### PROVEN METHODOLOGY

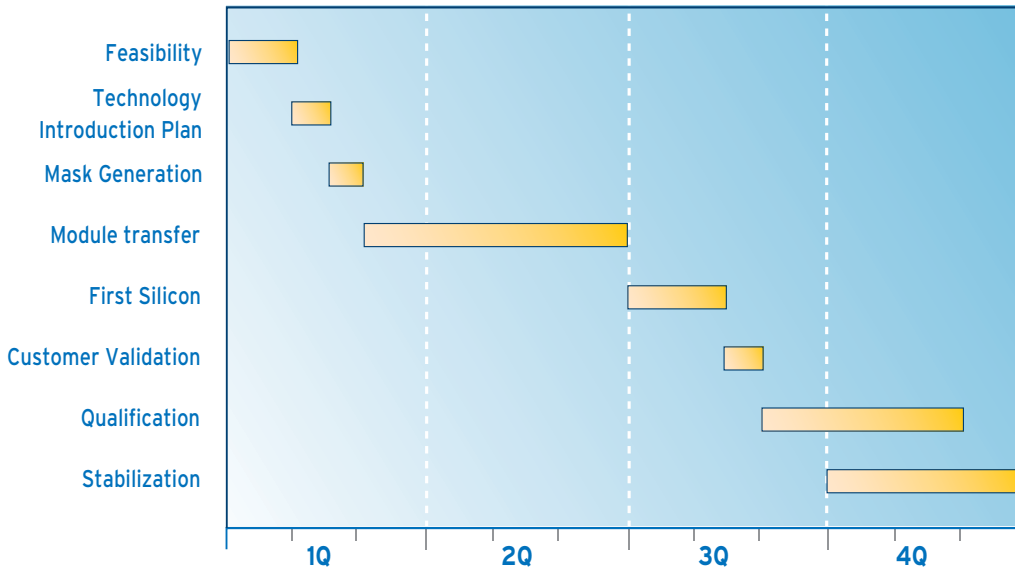
- Non Disclosure Agreement, Business Agreement
- Feasibility: Compatibility Analysis between lines and processes using FMEA approach
- Project team build-up (members are MHS staff and Customer staff), Project schedule and objectives set-up
- Technology Introduction Plan definition including Pilot Product choice and Qualification Plan
- Process and Equipment Installation and Steps Validation
- Process and Product Qualification with Customer
- Statistical Process Control and Yield-up program
- Release to production and ramp-up

## TIMEFRAME

An optimized timeframe has been achieved thanks to the combination of MHS's experience in transferring procedures as well as a thorough knowledge of its own CMOS and BiCMOS processes.



### PROCESS TRANSFER TYPICAL TIMEFRAME



## Process Customization

Along with its proprietary processes and the processes transferred from customers, MHS offers the service of process customization to adapt to customer specific needs.

**This customization may consist of:**

- Adding a new device
- Adjusting some device parameters
- Adding a new process module

As an example, such customization may consist in the co-integration of a sensor with the Integrated Circuit, adding a specific MEMS process module.

This service, motivated by a foreseen volume wafer production, includes process integration development, engineering evaluation, process stabilization, device modelization and Design Kit customization.

