



Thursday, January 16 | 10:00 am – 2:00 pm

Oregon State University

Memorial Union Ballroom



Oregon State
University



semi™

Professional Development Seminar

ENGAGE

With an engineer's daily life

LEARN

About job opportunities in the High-Tech Industry (internship, entry level)

NETWORK

With professionals and executives during our speed mentoring,
mock interview & networking sessions



Oregon State
University

Thank you to our Hosts!



Oregon State
University

Thomas Weller, Ph.D.

Professor and Head, School of Electrical Engineering and Computer Science

Julie Brandis

Executive Director of Strategic Partnerships,
College of Engineering

Jeff Nason, Ph.D.

Head of School of Chem/Bio/Envr Eng • Sch of
Chem/Bio/Envr Eng

Hector A. Vergara, Ph.D.

Associate Professor, School of Mechanical,
Industrial and Manufacturing Engineering

Lanell Nolf, Employer Relations Manager

School of Mechanical, Industrial and Manufacturing
Engineering

Tina Batten, Corporate Relations

School of Electrical Engineering & Computer
Science

**Josefine Fleetwood, Employer Relations
Manager**

School of Chemical, Biological and Environmental
Engineering

School of Nuclear Science and Engineering

Department of Biological and Ecological
Engineering

Thanks to our Speakers!

Leonard Weitman, Principal, Weitman Consulting

Pam Fischer, Strategic Planning Engineer, Intel

Kristi Jacquez, Senior Human Resources Business Partner, Microchip Technology

Susie Martin, Director of HR, Siltronic Corporation

Damian Scandiffio, Director of Enterprise Sales, Acara Solutions

Mariana Castillo Acosta, Mechanical Engineer, Edwards Vacuum

Jordan Pifer, Project Engineer, JE Dunn Construction

Beste Olcer, Industrial Engineer - MSEI (Micro Systems Engineering)

David Zier, Senior Manager, DL System Software, NVIDIA

April James, Software Engineer, Siltronic

Paige Sedgwick, Process Engineer, SSOE

Eunice Baek, Technical Support Engineer, TEL

Thanks to our Speakers!



Thanks to the SEMI Pacific
Northwest Chapter Members and
Industry Leaders and Volunteers!!





Global Transport and Logistics



WGNSTAR PERFORMANCE | DELIVERED

THANK YOU TO OUR SPONSORS



WE VALUE OUR INDUSTRY PARTNERS



AHEAD OF WHAT'S POSSIBLE™



CORBIN
CONSULTING ENGINEERS



JEDUNN
CONSTRUCTION



STUDENT CHECK-IN



Scan the QR code on the left to
check into Getting Hired In The
Semiconductor Industry event



Professional Development
Seminar

Oregon State University
Memorial Union Ballroom

Student Check-In



Use your smartphone's camera to scan the QR code above,
then enter your OSU email to be checked in.

10:00 Welcome

Thomas Weller, Ph.D., Jeff Nason, Ph.D., Hector A. Vergara, Ph.D.
Oregon State University

10:05 SEMI Pacific Northwest Chapter Introduction

Leonard Weitman, Principal, Weitman Consulting

10:10 Semiconductors 101

Pamela Fischer-St. George, Intel

10:30 Personal Branding + Resume Best Practices

Kristi Jacquez, Microchip Technology Inc.

10:50 Interview Like a Pro: Perfect Your Pitch

Susie Martin, Siltronic

11:10 Ask Me Anything: A Day in the Life of a Semiconductor Engineer

Damian Scandiffio, Acara Solutions – **MODERATOR**

Mariana Castillo Acosta, Edwards Vacuum

Jordan Pifer, JE Dunn Construction

Beste Olcer, MSEI – Micro Systems Engineering

David Zier, NVIDIA

April James, Siltronic

Paige Sedgwick, SSOE

Eunice Baek, TEL

11:50 Students Pick Up Lunch



Professional Development Seminar

Oregon State University

Memorial Union Ballroom

(continued)

12:00 Job & Internship Opportunities

**12:20 Networking with Industry Leaders
Participating Companies Include:**

Analog Devices

Corbin Engineering

Edwards Vacuum

Form Factor

Intel Corporation

JE Dunn Construction

KLA

Kokusai Electric

LAM Research

Micro Systems Engineering

Microchip

Microsoft

Mortenson

Nvidia

Pfeiffer Vacuum

Qorvo

SCREEN

SEMI

Siltronic

SSOE

TEL

Weitman Consulting

2:00 Adjourn

Welcome!



Oregon State University

Thomas Weller, Ph.D.

Professor and Head, School of Electrical Engineering and
Computer Science

Jeff Nason, Ph.D.

Head of School of Chem/Bio/Envr Eng • Sch of
Chem/Bio/Envr Eng

Hector A. Vergara, Ph.D.

Associate Professor, School of Mechanical, Industrial and
Manufacturing Engineering

Student Check-In



Use your smartphone's camera to scan the QR code above,
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What is SEMI?

Leonard Weitman

Principal, Weitman Consulting



Use your smartphone's camera to scan the QR code above, then enter your OSU email to be checked in.

SEMI provides a platform for the global electronics manufacturing supply chain to:



Connect ♦ Collaborate ♦ Innovate ♦ Grow ♦ Prosper

SEMI's Network Aims to Enable Industry Success



SEMI as Difference-maker for Members and the Industry

3,000 members
worldwide

Focused, Forward-Looking Collaboration

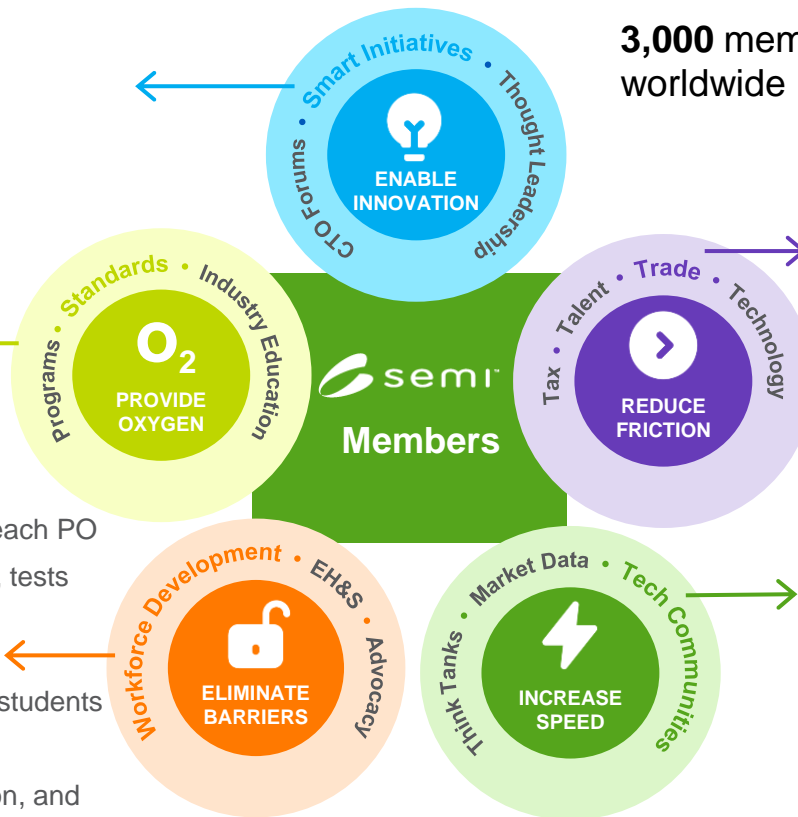
- Smart Mobility
- Smart MedTech
- Smart Data-AI
- Smart Manufacturing

International Standards

- Synchronize and safeguard industry
- 5,000 global volunteers
- >1,000 Standards
- >25 SEMI Standards referenced on each PO
- Interoperability, safety, EHSS, specs, tests

Comprehensive WFD Programs

- High Tech U – 237 programs, >130K students
- University connections
- Mentoring, Diversity, Equity & Inclusion, and Women in Tech



Member-Driven Global Advocacy

- Amplify collective voice of the industry
- Meet with policymakers worldwide on trade
- Promote Global Trade Principles
- Advocate for "Essential Business" status

SEMI Technology Communities

- Member companies can engage with customers and suppliers and form new business relationships
- Enables collaboration and connection between companies and colleagues
- 450+ participating companies
- 20+ technical communities

For More Information on SEMI

Contact **Lin Tso**

Email: ltso@semi.org

Thank you to our hosts, sponsors, and participants!



— Student Check-In —



SEMI Pacific Northwest Chapter
Professional Development Seminar (PDS)
with Oregon State University

Connecting Students to the Semiconductor Industry

January 16th, 2025

Network with Industry Leaders



MICROCHIP



NVIDIA





Semiconductor Industry Overview

Oregon State University

Professional Development Seminar

Pamela Fischer-St. George, Ph.D.

Intel Corporation

January 16, 2025

SESSION GOALS

- ❖ Introduce/orient you to the global semiconductor/ microelectronics industry and its core processes
- ❖ The American CHIPS Act and what it can mean for you...
- ❖ Skills *beyond the technical* that will make you successful in this industry

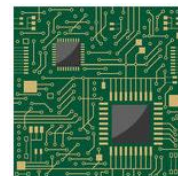
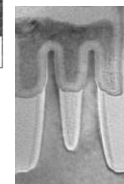
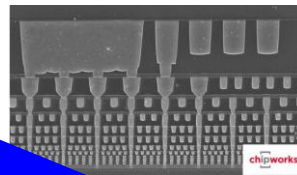
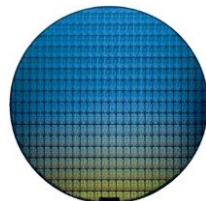
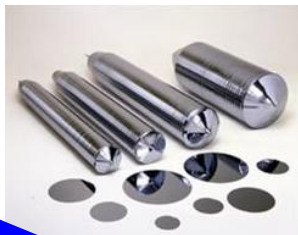
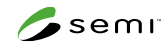
Mostly, we want to get you excited and enthusiastic about this industry by making it feel real and attainable as a career opportunity.

Think about the ways that microprocessors impact your daily life...



And many more...

Large- and Small-Scale Engineering – The Journey to Nano and Back



Macr
o

Macr
o

Nan



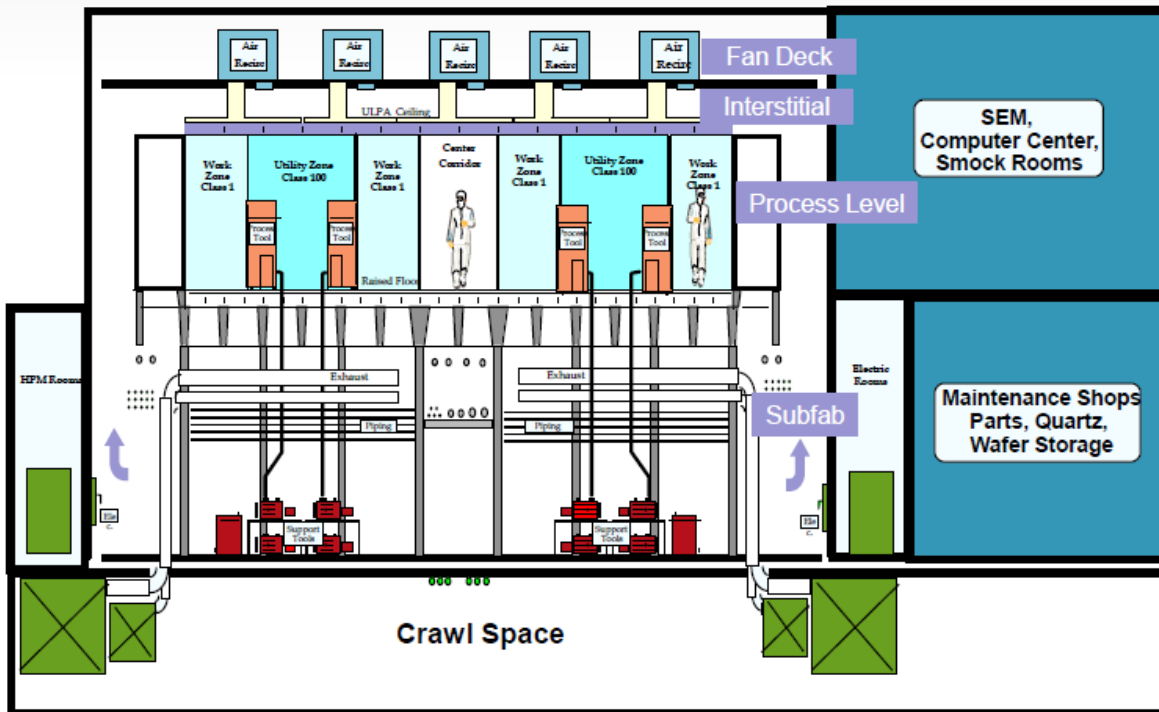
Fabrication Facilities



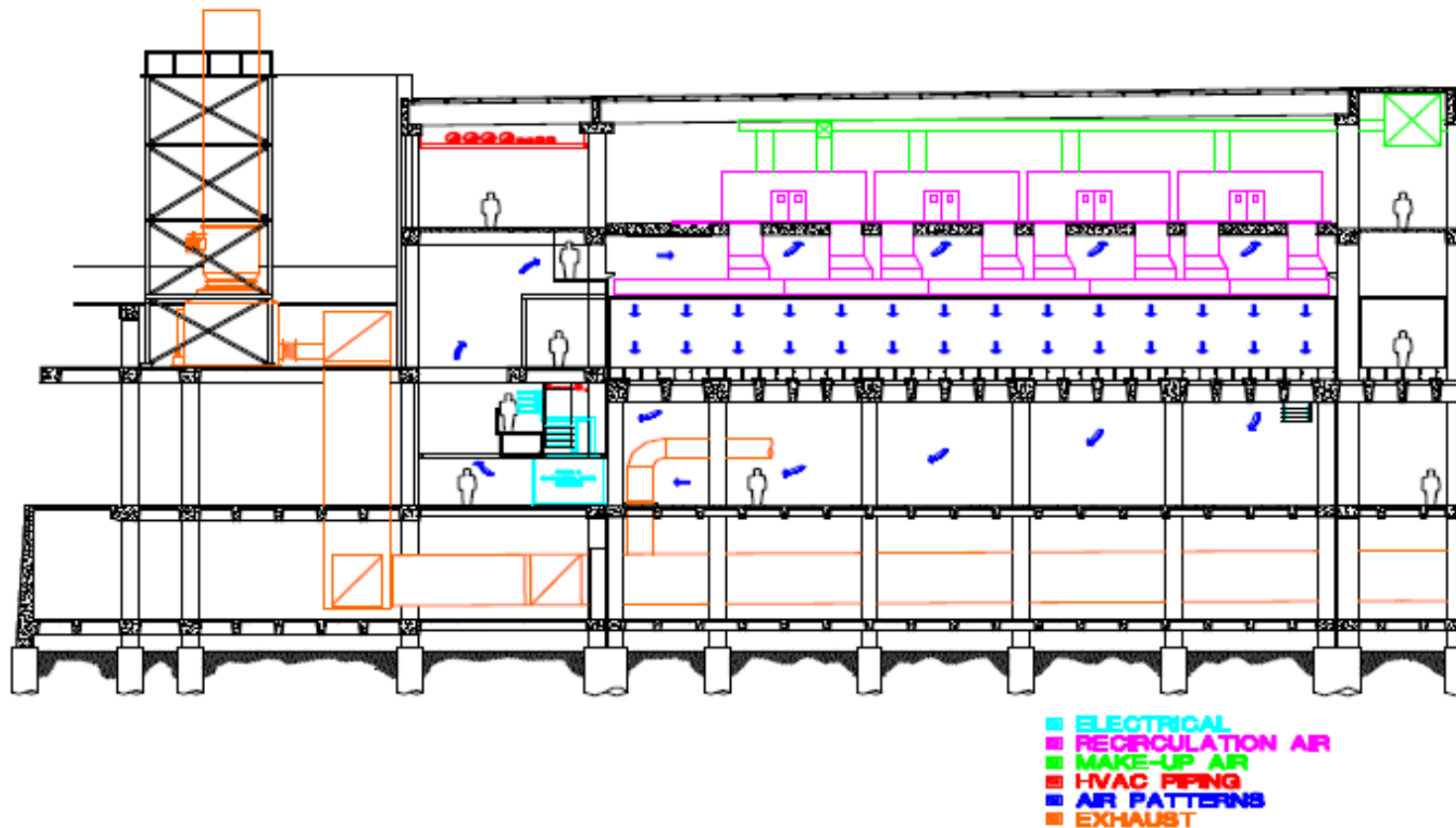
Cleanroom Configuration



Freescale ATMC Factory Configuration



Cleanroom Airflow/Circulation



Fab Facts

- 85,000+ square feet of sub-class 1 clean room space supporting wafer capacity of 6,000 WPW
 - Approximately 750 people working at OHT-Fab
 - Factory operates 24 hours per day, 364 days per year
 - Factory moves ~6,400,000 CFM, enough to fill 120 hot air balloons every minute
 - 9,300 tons of refrigeration capacity, sufficient to cool 2,800 homes
 - Factory uses 44,000,000 gallons of water/month, equivalent to 4,400 homes
 - Factory uses ~215,000,000 KWH per year, equivalent to 6,000 homes
 - Factory has more than 17 miles of stainless steel piping and more than 50 miles of electrical wiring
-
- Controlled temperature: $71 \pm 0.5^{\circ}\text{F}$
 - Controlled humidity: $45 \pm 2.5\% \text{ RH}$
 - Recirculating fans ~300 units at 5 million CFM
 - Air exchanges: ~400-500 per hour
 - 100% laminar flow
 - Facilities: process chilled water, water recycling systems, high purity gases, gas delivery, liquid delivery, exhaust handling, liquid waste handling, etc.



Daily Operations...Complexity!

Think about the complexities that compromise not only the design of a fab, but the daily operation of a facility:



Environmental

General exhaust, exhaust for HPMs (hazardous process materials), metallic and non-combustible nonmetallic exhaust, exhaust duct sprinkler systems, storage & drainage of HPMs, storage/use of pyrophoric liquids and water-reactive liquids, hazardous waste, acid, basic, solvent waste, wastewater remediation, air pollution control systems (eg. VOCs, NH₃)



Safety

Fire and smoke alarm systems, emergency alarm systems/egress, continuous gas detection systems, emergency power systems, detection and alarm systems for pyrophoric liquids, exhaust ventilation flow alarm devices for pyrophoric liquids and water-reactive liquids



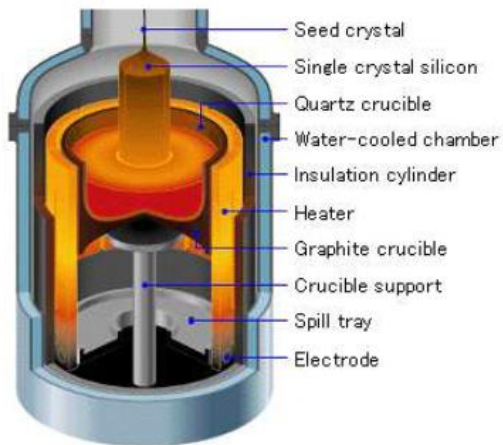
Process

Power, cooling water, gas delivery (inerts and HPM), liquid chemical delivery and drainage, telecommunications and automation: factory automation, material handling system, metrology data collection, yield data collection, controls/report outs for factory productivity



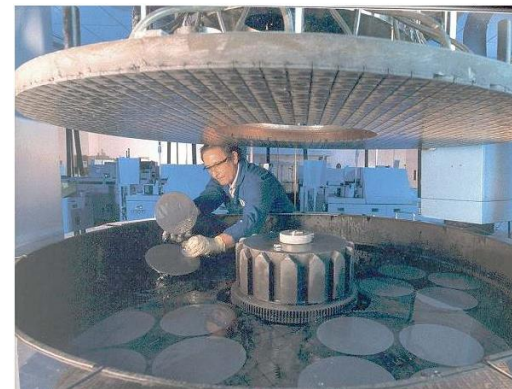
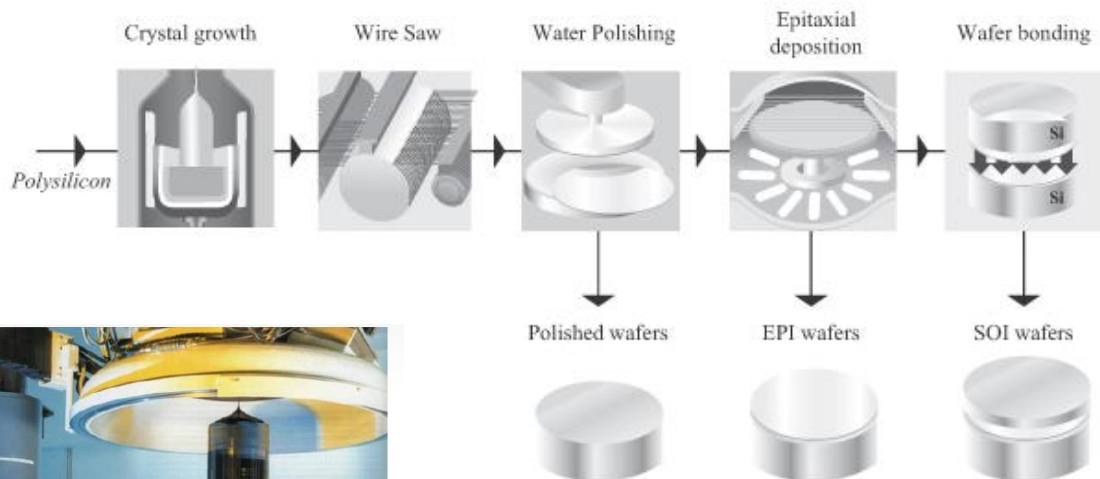
WAFER AND DEVICE MANUFACTURING

Wafer Manufacturing

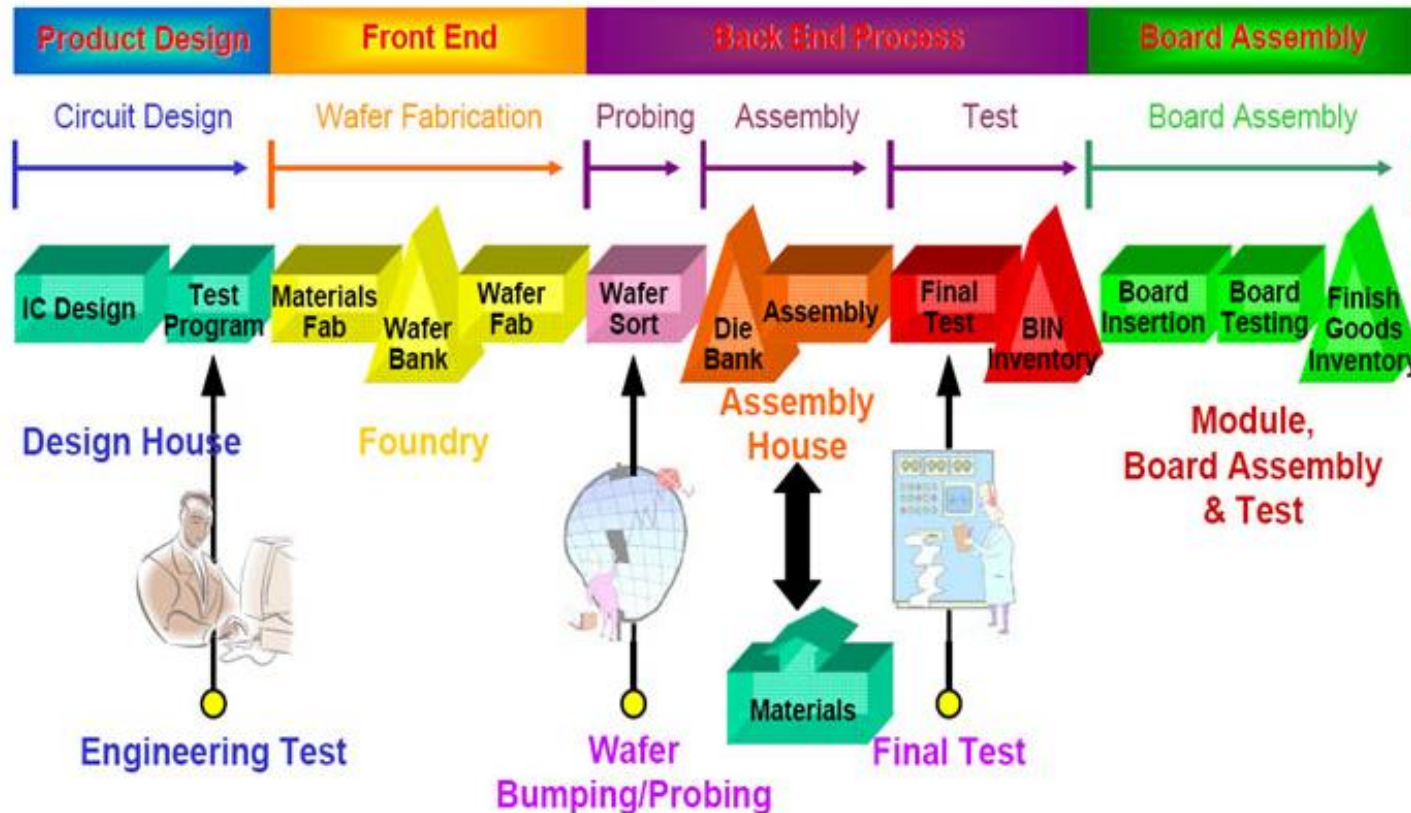


200mm Silicon Ingot

Photo courtesy of Wacker Siltronic

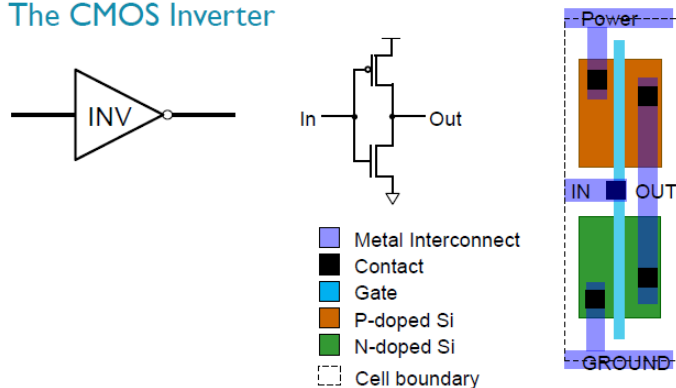


Device Development

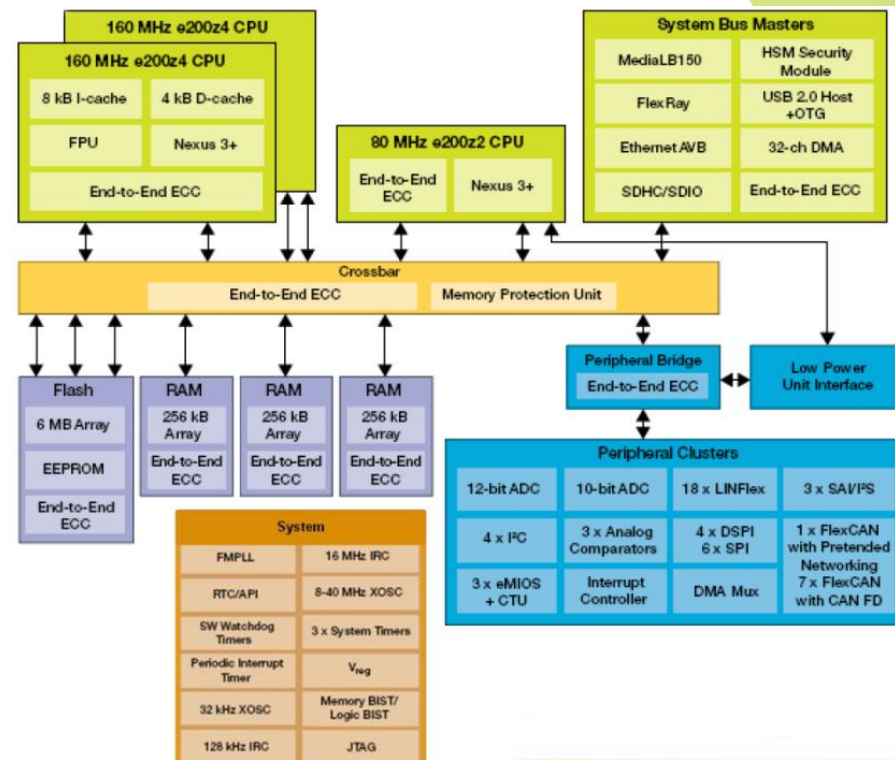
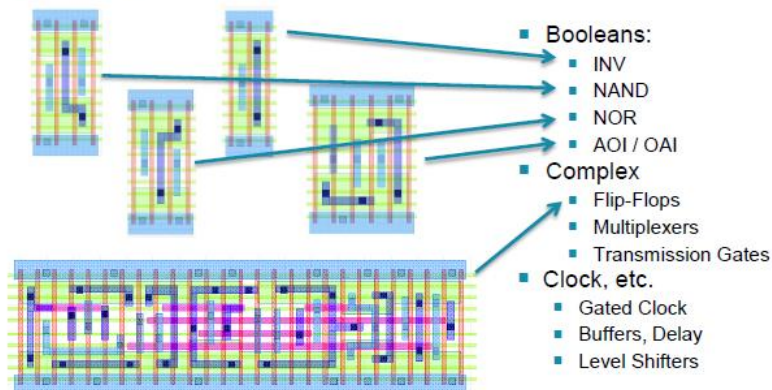


Device and Circuit Design

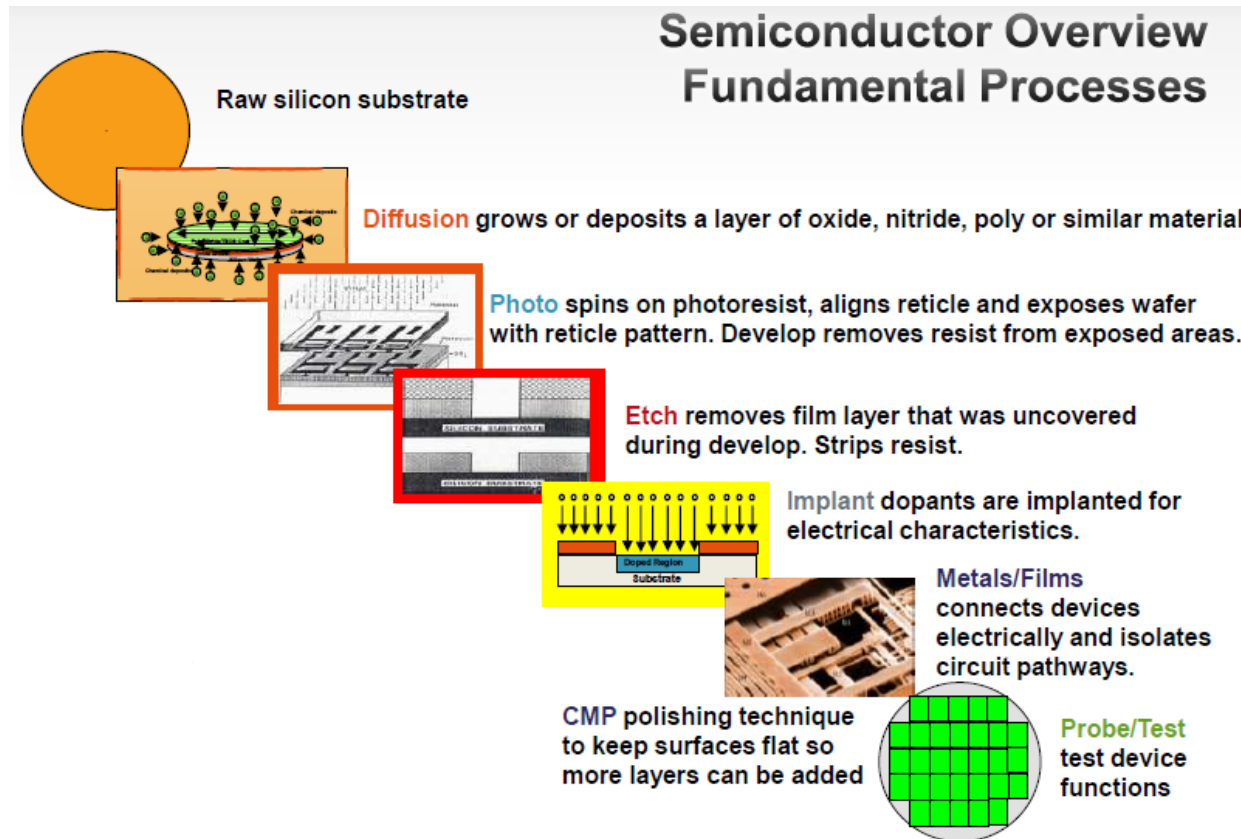
The CMOS Inverter



Digital Logic Standard Cells



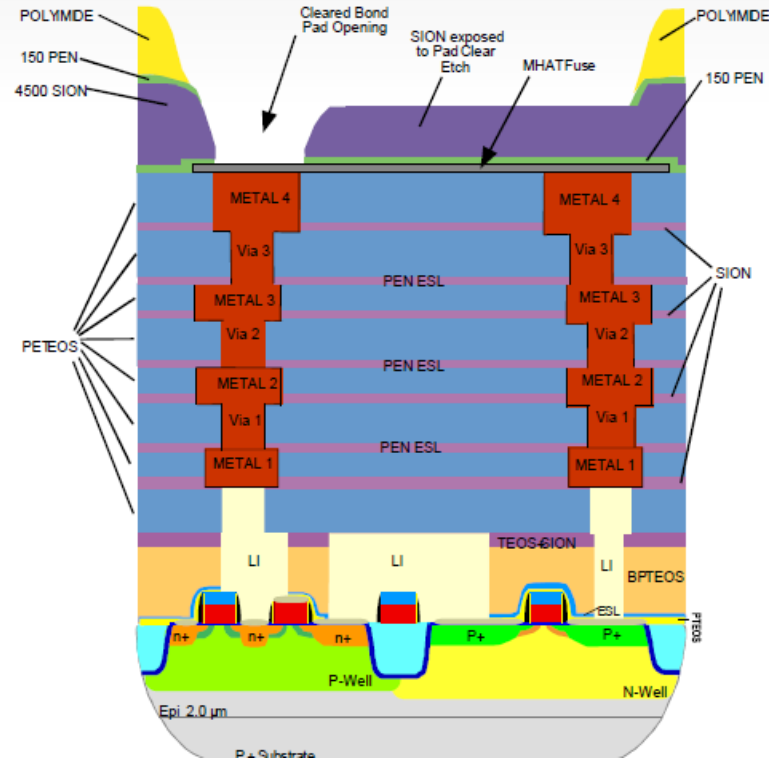
Translating the Design to Silicon



Planar Microprocessor Structure

Typical Processor Cross-Section

This process requires more than 190 stages. Each stage contains multiple substeps.



Device Cross-sections

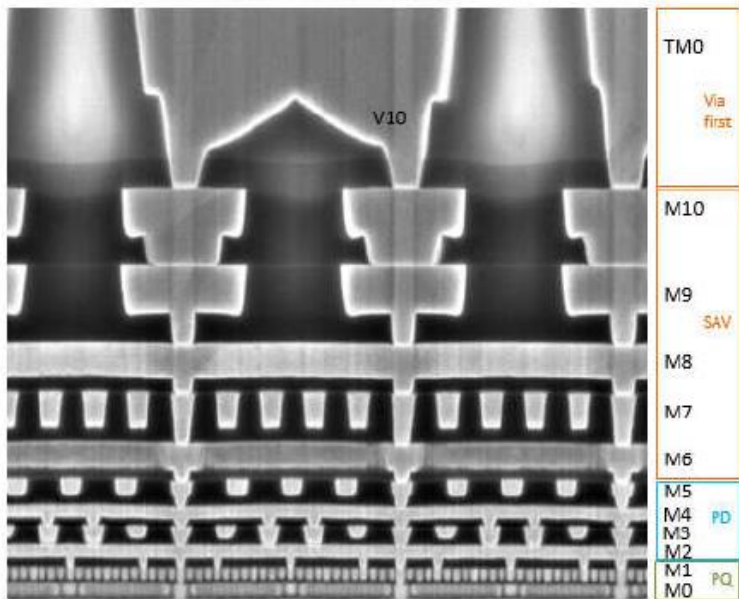
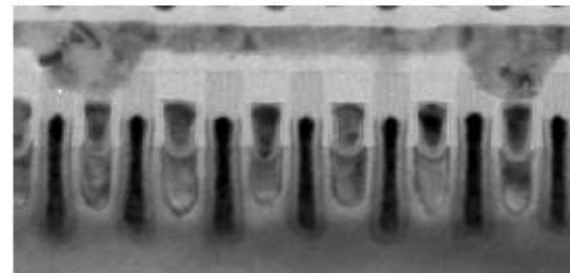
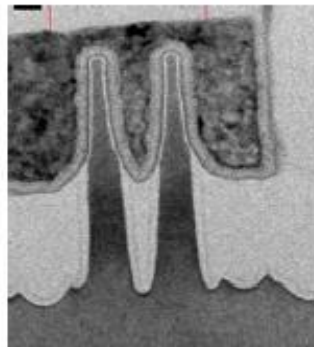


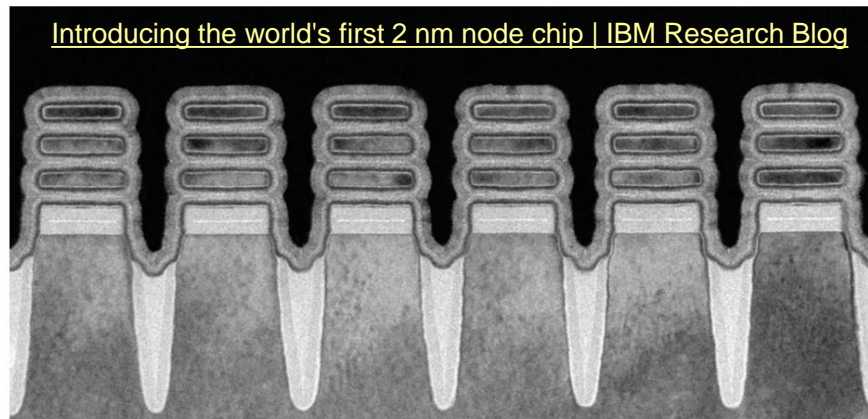
Figure 1: 10nm Interconnect Stack

A. Yeoh, et. al., IITC, 2018



C. Auth, et. al., IEDM, 2017

Figure 7: Transistor Fin and Gate-Cut Images



Defects – what’s the big deal?

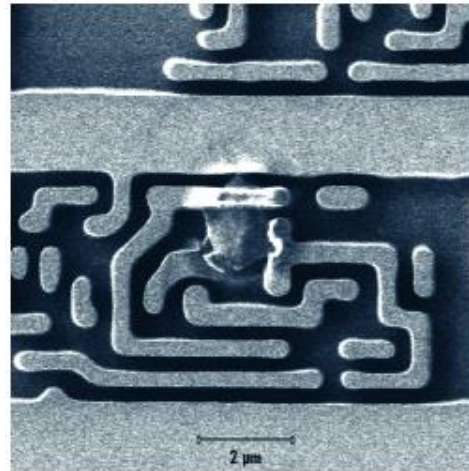
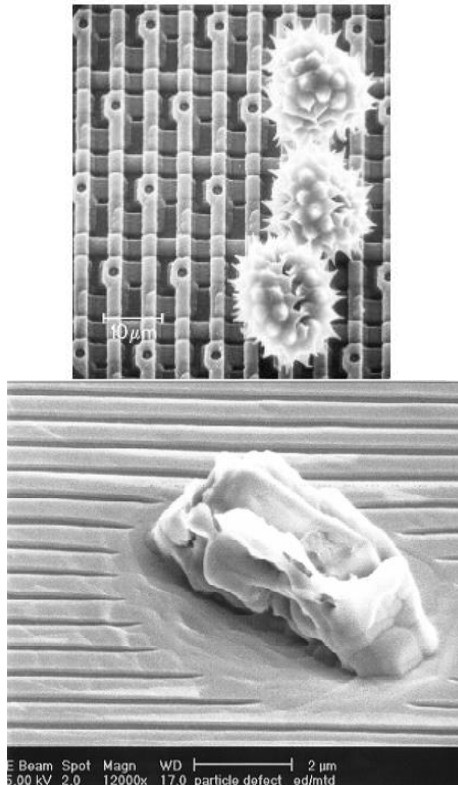


Figure 4: Micrograph showing a particle embedded in an aluminum layer, which was revealed by an E-beam defect review tool.

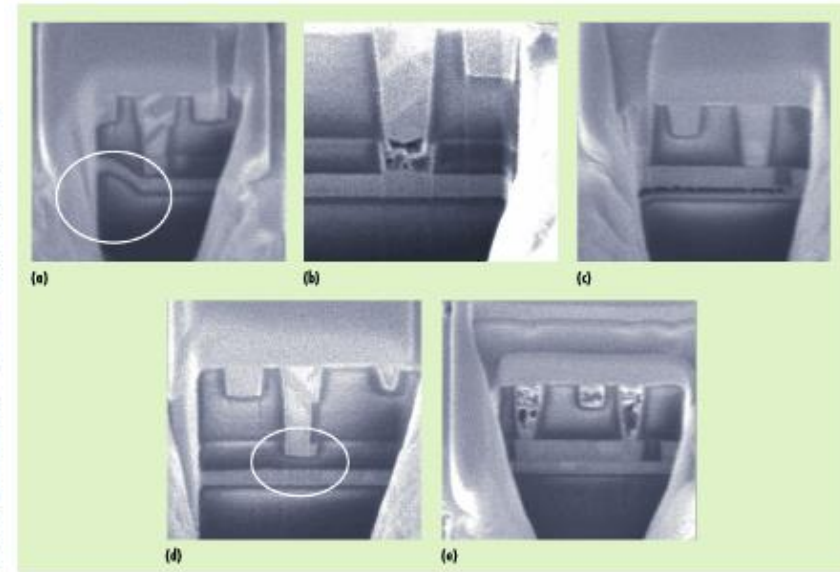


Figure 8: Cross-sectional images of a copper interconnect layer showing five types of defects: (a) a bump in the dielectric, (b) bad metal filling during first-level copper deposition, (c) missing metal at the bottom of the interconnect, (d) oxide underetch, and (e) bad metal filling during second-level deposition.

S. Blanc-Coquand, Micromagazine, 2007

Dr. Lynn Fuller, Rochester Inst of Microelectronic Eng, 2008

Microcontamination



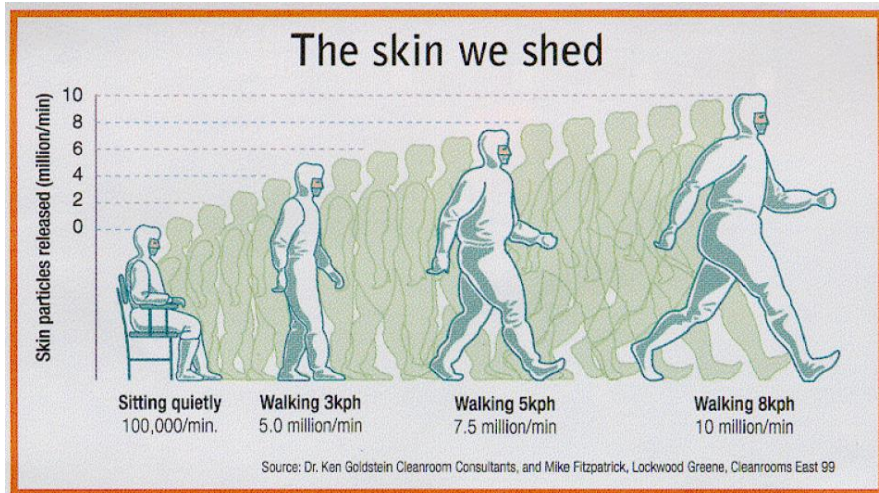
The dirtiest things in the clean room are the people. Cleanroom suits and wafer pods are used to protect the wafers from the people.



www.intel.com/

MAXIMUM NUMBER OF PARTICLES PER CUBIC FOOT OF AIR

	0.1 um	0.2um	0.3um	0.5um
CLASS 1	35	7.5	3	1
CLASS 10	350	75	30	10
CLASS 100		750	300	100
CLASS 1000				1000



Dr. Lynn Fuller, Rochester Inst of Microelectronic Eng, 2008



The CHIPS and Science Act of 2022

How many of you heard about the global chip shortage over the past few years?

'It's a Roller-Coaster Ride': Global Chip Shortage Is Making Industries Sweat

The internet-connected world is completely dependent on the production of semiconductors. That's become a problem now that supplies are running short.

Why the global chip shortage threatens the economy, national security and Americans' 'status quo'

"It is both an economic and national security imperative to solve this crisis."



By [Catherine Thorbecke](#)
January 26, 2022, 3:06 AM



Why is there a chip shortage for computers and cars?

🕒 5 February 2021 · 💬 Comments

The CHIPS and Science Act of 2022

- The CHIPS and Science Act of 2022 is a **\$280 billion** legislation that authorizes funding to boost semiconductor and science innovation in the U.S. The bill was signed into law by President Biden on 11/25/2022.
 - The CHIPS Act fund allocates up to **\$54.2 billion for chip companies** to open new factories in the U.S.
 - The funding comes with conditions to prevent recipients from expanding production of advanced chips in China. The bill aims to address the chip shortages that have affected various industries and to compete with rivals like China in the semiconductor market.
- The goals of this money include lowering chip costs, creating jobs, strengthening the US supply chain, countering China's CHIP strategy, preserving US leadership in the industries of the future, and preserving American national and economic security.
- The money is invested across R&D, Manufacturing, Workforce Development, and establishing a National Center of Semiconductor Technology.

What does this mean for you?

- **Workforce development (~3-5 years)**
 - Community Colleges/ Colleges/Universities are adding classes and programs targeting training and skills development that are directly applicable to the semiconductor industry
- **Jobs!**
 - This is a growing industry with incentives to continue to grow in the US and provide good paying jobs.



SUCCESS IN THIS INDUSTRY



Your Skills *Beyond the Technical* are also Critical to Career Success

- Beyond the scientific and engineering brain power... we are people working together to achieve big goals!
- Ultimately, what will make you successful?
 - Teamwork and cross-discipline collaborations are essential
 - Being open to and adaptable to change; this industry moves fast!
 - Make data-based decisions and use data to drive your proposals
 - Be creative and innovate
 - Be self-motivated and ask questions
 - Continuously learn, read, and grow your knowledge and skills
 - Learn to think in terms of risks, reward, and return on investment (ROI)
 - Be open to understanding and growing your knowledge of the business-side (as the business-side drives key company decisions, including technology decisions)
 - Be open to parallel career transitions
- *Opportunities abound in this industry for engineers/scientists with your skillsets!*



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Prepare To Go Pro

Personal Branding and Resume Best Practices

Kristi Jacquez/ Sr. HR BP, Microchip Technology Inc
Technology / January 16, 2025

AGENDA

Building your Brand

Resume Best Practices

Cover Letter: Best
Practices

- 1 Building your brand – What is it
- 2 Building your brand – Best practices
- 3 Cover letter – Best Practices

Building Your Personal Brand



Personal Branding – What is it

- Personal branding is the practice of marketing yourself and your career as a brand
- It involves identifying and communicating your unique value proposition, skills, experiences, and personality traits to differentiate yourself from others in your field
- Personal branding helps you establish a reputation and build a network of connections that can lead to career opportunities, professional growth, and increased visibility in your industry

Establish Your Personal Brand

Build your Personal Brand on the Following Criteria

**Be Your
Authentic Self**

**Be
Trustworthy**

**Embrace
Feedback**

Building Your Brand – Best Practices

Key Components

- **Self-Assessment:** Understanding your strengths, weaknesses, values, and goals
 - **Unique Value Proposition:** Defining what makes you unique and how you can add value
 - **Target Audience:** Identifying who you want to reach with your brand (e.g., employers, clients, industry peers)
 - **Consistent Messaging:** Communicating your brand consistently across various platforms, such as social media, personal websites, resumes, and in-person interactions
 - **Online Presence:** Building and maintaining a professional online presence through platforms like LinkedIn, personal blogs, or portfolios
 - **Networking:** Actively engaging with others in your industry to build relationships and expand your influence
- Effective personal branding can lead to greater career opportunities, professional recognition, and personal fulfillment**



Authentic Self & Personal Brand Resources

Article Reference

- 14 Ways to Discover and Project Your Authentic Self, Online and Offline
- How Much of your authentic self should you really bring to work?
- Intuition: When is it right to trust your gut instincts?

Video References

- Vocal Branding: How Your Voice Shapes Your Communication Image
https://www.youtube.com/watch?v=p_ylzGfHKOs

Resume Best Practices



Resume – Best Practices

Key Components

- Recruiters spend 6-8 seconds on initial scan of resumes
- Use simple layouts to highlight
 - Objective
 - Degree in pursuit with projected graduation date
 - Internships & Co-Ops
 - Relevant projects, publications, and coursework
- Relevant work history
 - Do not include every part time job held since high school. Select a few that demonstrate commitment, continuity and responsibility
 - List Employers/Internships in reverse chronological order (current/most recent first)
- Avoid graphics or non-traditional bullet points
 - These often become garbled in applicant tracking systems and are not easy on the eye

Examples of a Good and Bad Resume

Crowded Resume

CAREER OBJECTIVE	
To redefine the current trajectory of semiconductor growth by leveraging my multidisciplinary expertise and transferring key deliverables through a modus operandi that accelerates synergetic growth.	
EDUCATION	
University of California, Los Angeles (UCLA) M.S. in Materials Science and Engineering (3.62 / 4.0) Sept '21 – Mar '23 Los Angeles, CA, USA	
<ul style="list-style-type: none"> Graduate Teaching Assistant (Course: Engineering & Society) Coursework: Science of Electronic Materials Solar Cells 	
<ul style="list-style-type: none"> Electron Microscopy Principles of Materials Science Multiferroic Materials Electrochemical Processes Growth and Processing of Electronic Materials 	
National Institute of Technology Hamirpur (NIT-H) B.Tech. in Materials Science and Engineering (9.12 / 10.0) Aug '17 – June '21 Himachal Pradesh, India	
<ul style="list-style-type: none"> Departmental Silver Medalist Coursework: Nanomaterials Materials Characterization 	
<ul style="list-style-type: none"> Surface Engineering Magnetic Materials Phase Transformations and Heat Treatment Thin Film Technology Failure Analysis Advanced Functional Oxides 	
PROFESSIONAL EXPERIENCE	
Device Integration Intern June '22 – Sept '22 STMicroelectronics, Fremont	
<ul style="list-style-type: none"> Optimized the functions of the Manual Prober, improving data collection accuracy by 87%. Executed TLM operations and computed 150 datasets to determine key electrical properties of device wafers. Collaborated across international fabrication teams, and transferred key findings towards upgrading existing manufacturing processes. 	
Summer Research Intern & IAS Fellowship Awardee May '19 – July '19 Indian Institute of Science	
<ul style="list-style-type: none"> Synthesized Sn-Te and Mg-Zn alloys at the eutectic composition using Bridgman Directional Solidification. Generated Scanning Electron Micrographs depicting the effect of interfacial growth on the material morphology. Discovered the optimum growth velocity for the lamellar-to-rod transition using Fourier Transform operations, SEM, and ImageJ. Published key findings in the Indian Academy of Sciences National Project Repository. Report can be accessed here. 	
ACHIEVEMENTS	
<ul style="list-style-type: none"> Conference: Awarded for poster presentation during First Indian Materials Conclave at Indian Institute of Science. Academic Excellence, NIT-H: Institute Rank 60/699 in my undergraduate program. IAS SRFP Fellowship: Awarded with Indian Academy of Sciences Summer Research Fellowship 2019. 	
SKILLS	
<ul style="list-style-type: none"> Characterization: SEM, TEM, XRD, XPS, UV-Vis, FTIR, Raman Spectroscopy, PL, IV/ CV measurements, and Mechanical Testing. Fabrication: Photolithography, Thermal Evaporation, Sputtering, CMP, Directional Solidification, Chemical Bath Deposition, Spin Coating, Co-precipitation, Casting, and Etching. Computational: Octave, JMP, Origin, C, MATLAB, Python, ImageJ, LATEX, and MS Excel. Other: Materials Selection, Reliability Testing, Process Optimization. 	
SELECTED PROJECTS	
Design and synthesis of hybrid halide perovskite solar cell Sept '21 – Present UCLA	
<ul style="list-style-type: none"> Synthesized n-i-p device architectures via two-step process using Chemical Bath Deposition, Spin Coating, Thermal Evaporation, and Sputtering. Optimized device performance by solvent engineering and incorporating systemic variations in the process parameters. Performed device characterization using EQE, SEM, PL, and IV. 	
Synthesis and Characterization of spinel and inverse-spinel Nickel Chromites Dec '20 – May '21 NIT-H	
<ul style="list-style-type: none"> Synthesized nickel chromites using co-precipitation and performed characterization using FTIR, XRD, and XPS. Employed Origin to generate the final spectra. Discovered formation of a partially inverted spinel structure as confirmed from the FTIR and Raman studies. 	
LEADERSHIP	
<ul style="list-style-type: none"> Co-founder, MSE Departmental Team: Established the first Materials Engineering Departmental Team and supervised 18 projects, events, and promotions. Departmental Secretary, Technical Activities Division: Administered technical and managerial operations of eight Departmental Teams. English Head, Institute Editorial Board: Directed editorial workflow and managed editing and proof-reading processes for the Institute Annual Magazine and Newsletter. Board member, Materials Science Graduate Council: Working with students and faculty to enhance the graduate experience in the department. 	

Good

EDUCATION	
Oregon State University Master of Chemical Engineering GPA 3.89/4.0	Jun. 2022
Tunghai University Bachelor of Science in Chemical and Materials Engineering	Jun. 2019
EXPERIENCE	
Private teacher Taught for subjects of Math, Physics, and Chemistry	Oct. 2018 – Aug. 2019
Teacher Taught for secondary school subjects of Math, Physics, and Chemistry at various cram school	Oct. 2016 – Feb. 2018
RESEARCH EXPERIENCE	
Tunghai University Process Design Of Isopropanol Collected relevant data for making isopropanol and analyzed comprehensive conditions	Sept. 2018 – Mar. 2019
<ul style="list-style-type: none"> Discussed research with professors and team members to achieve effective communication and cooperation Evaluated the reactor and factors Used Aspen Plus experimental simulation program for data simulation Analyzed the experimental results and corrected the data to make acetone into high-purity isopropanol by the lowest cost manufacturing process 	
Tunghai University Team Leader for the First National Electrical Vehicle Innovation Design and Practice Competition Analyzed the performance and structure of electric vehicles and confirmed the degree of vehicle load	Dec. 2017 – Jun. 2018
<ul style="list-style-type: none"> Planned the project schedule and led the team members to discuss the work progress Regularly with relevant experts Constructed an electric vehicle that meets low-cost and can bear weight and achieve maximum speed Tested vehicles at appropriate locations to obtain relevant data Examined experimental data to correct the shortcomings and limitations of electric vehicles 	
VOLUNTEER EXPERIENCE	
Managed in elementary school for winter and summer vacation volunteer activities Gained experience in teamwork Developed and planned activities and made strategy	Jul. 2015 – Aug. 2017
Collaborated in volunteer activities to lead overactive children Gained experience in teamwork and how to be the team leader Trained multiple skills to get along	Jul. 2015 – Aug. 2015
SKILLS	
Computer: Advanced Microsoft Office Suite software including Excel, PowerPoint, Word, Matlab, Aspen Plus, Aspen HYSYS	
Language: Native Chinese speaker, English, Taiwanese	

Resume – Best Practices

Key Components

- Early Career/New Grad – 1 page only
- Showcase relevant experience:
 - Class Projects
 - Job Duties
- Awards and activities
- Proofread carefully! Avoid grammatical errors and misspellings
- Be specific and quantify when possible but leave them wanting to find out more
 - Avoid a long list of your duties, but instead showcase achievements or results achieved in your roles
 - Use numerical numbers; don't write out the number
- Use a professional email address
- Ensure your voicemail is set up and has a professional greeting and check it regularly.
 - Be sure your voicemail is not full

Cover Letter – Best Practices

Key Components

- If a company asks for cover letters, they want them
 - If not, make yourself stand out from the others
 - Opportunity to show off your written communication style
 - Opportunity to explain job experience gaps.
 - Should be clear and concise





Cover Letters: An Opportunity to Elaborate

- Make it Personal
- Explain how you meet the minimum requirements, and if you don't have all the requirements, you can address them here (including how you plan to meet the qualifications)
- Show your company knowledge - why you want to work for the company and why they should pick you
 - Company Website
 - About Us
 - Products
 - Careers Page
 - Culture
 - Recent Press Releases



INTERVIEW LIKE A PRO – PERFECTING YOUR PITCH

Susie Martin
Director of Human Resources
January 16, 2025

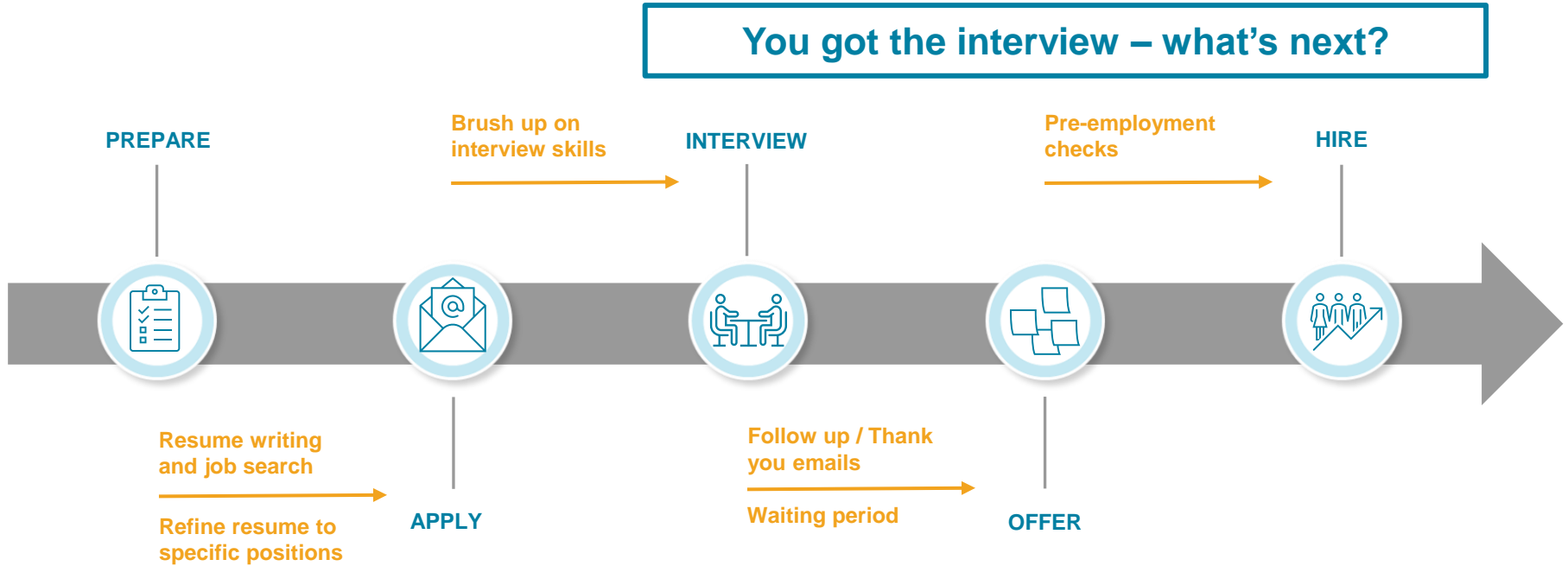
AGENDA

- 01** Candidate Lifecycle
- 02** Interviewing Process / Skills / Hacks
- 03** What Does Siltronic Want?
- 04** Boosting Your Chances of Success
- 05** Offer
- 06** Hire & Onboarding



01 | CANDIDATE LIFECYCLE

STEPS ALONG THE PATH TO EMPLOYMENT



02 | INTERVIEW PROCESS



Research the company, role, and interview panel

Understand mission, vision, values, & culture as well as products, services, & recent news



Prepare to speak to everything on your resume

Have examples of specific achievements in mind

Phone Screens

- ▶ 2-minute elevator speech about yourself
- ▶ Salary expectations often requested

In-Person Interview

- ▶ In-depth review of qualifications
- ▶ Two-way determination – Is it the right fit?



02 | INTERVIEW QUESTIONS – HOW TO ANSWER THEM

Standard interview questions often stump candidates, rehearse answers in advance



What are your strengths and weaknesses?

- ▶ Avoid cliches like ‘Detail-focused to a fault’
- ▶ Avoid anything detrimental such as ‘focus issues leading to missing deadlines’
- ▶ **Fantastic default answer: Public speaking**



Tell us about yourself

- ▶ Speak to your values, commitment, & work ethic
- ▶ Keep answers focused on how your skills will be value added to the role

02 | INTERVIEWING – ANSWERING BEHAVIORAL-BASED QUESTIONS


Tell me about a time when... Describe a situation where...



S

Situation

Provide context and background



T

Task

Describe goals



A

Action

Illustrate your actions in the effort



R

Results

State benefits savings successes

▶ Scenario should highlight your unique skills

▶ Keep answers concise and relevant

[How to Use the STAR Method to Ace Your Job Interview | The Muse](#)

02 | QUESTIONS FOR THE INTERVIEW PANEL

The questions you ask will give insight into what is important to you in a job and organization

Ask questions that help determine if it's a mutually good fit

- What are the immediate and long-term goals for the position?
- What types of projects will this position work on in the first year?
- What makes you excited to come into work everyday?

Salary questions are typically directed at the Recruiter, not the interview panel



02 | HACKS FOR A SUCCESSFUL INTERVIEW

Be yourself

Give authentic answers, share genuine experiences

Share yourself

Not who you think is wanted for the job

Admit if you don't know

Show willingness to learn

Highlight strengths related to job requirements

Provide examples of past achievements

Stay positive

Don't speak negatively about past employers

Ask for more time

It's ok to return to a question if you don't have an immediate answer



03 | CHARACTERISTICS OF A SUCCESSFUL SILTRONIC CANDIDATE

Innovative Thinker

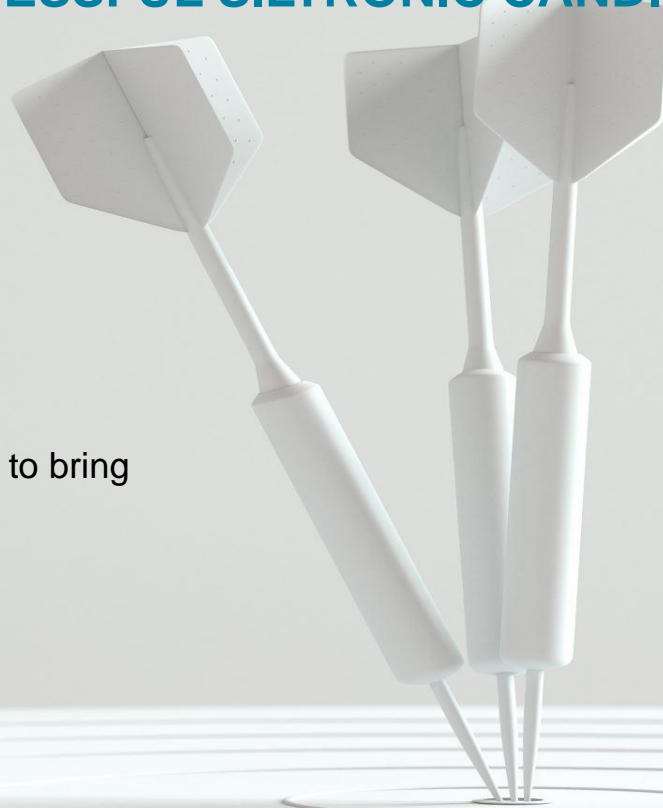
Leadership within Every Role: Leading by example

Collaborative Spirit: Working towards the same goal

Solution Driven and Proactive Attitude: Willingness to bring new ideas to the table and champion them to fruition

Creativity: Diversity of experience and thought

Longevity: Interest in building long-term careers



04 | BOOSTING YOUR CHANCES OF SUCCESS

Applicable internships

- ▶ Within a field or industry
- ▶ Work in a 24/7 manufacturing environment

University projects

- ▶ Direct industry application

Network, network, network

- ▶ Personal connections go a long way

Attend industry events

- ▶ Ask for informational meetings with industry professionals



05 | OFFER – IT'S NOT ALL ABOUT THE MONEY

Reviewing your offer – what's important?

- ▶ **Understand realistic salaries for your level of entry**
- ▶ **Total compensation**
 - ▶ Benefits package
 - ▶ Life insurance
 - ▶ Holidays
 - ▶ Vacation and sick leave
 - ▶ Schedule
 - Remote, hybrid, flexible hours
 - ▶ Bonus structure
 - ▶ 401k match
 - ▶ Tuition assistance

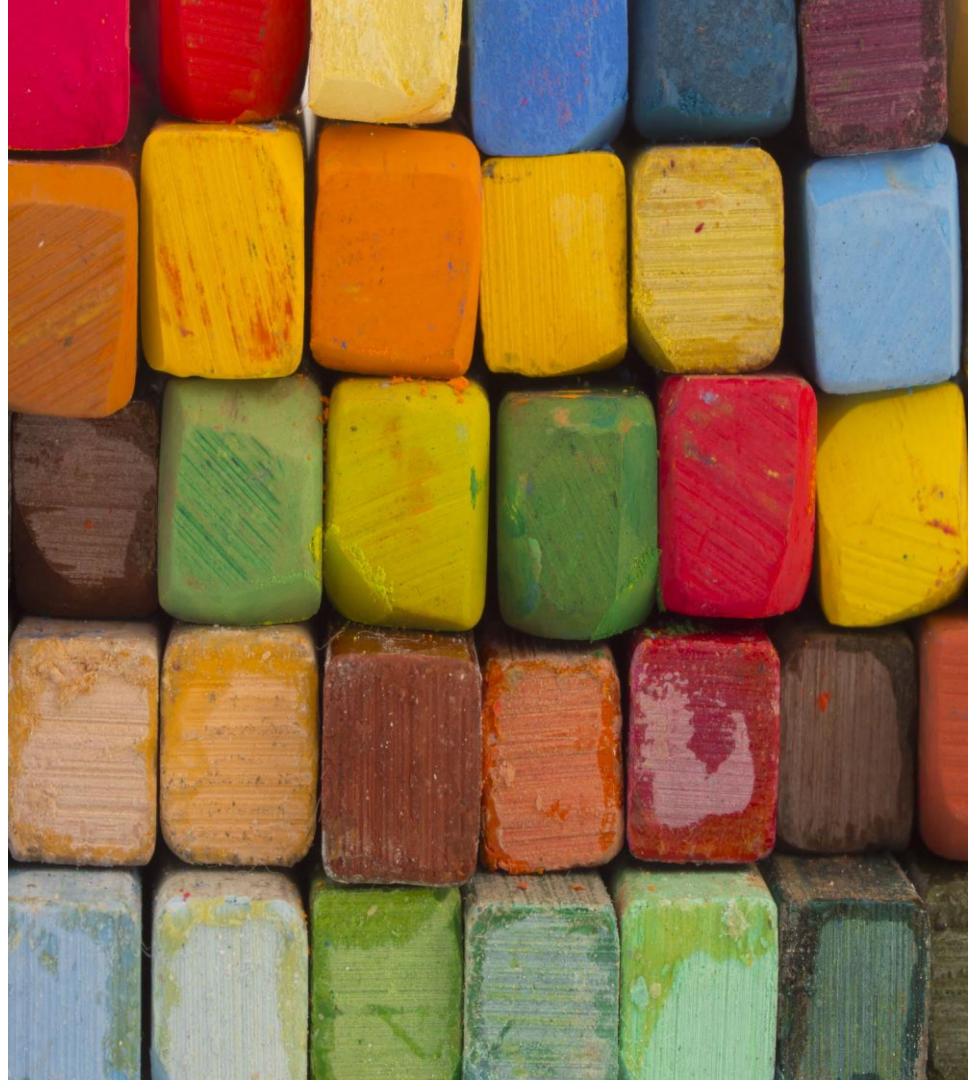


06 | NEW HIRE & ONBOARDING BEST PRACTICES

- ▶ Complete pre-employment documents quickly
- ▶ Be responsive to background check agencies
- ▶ Complete drug screens in a timely manner
- ▶ Notify your professional references to ensure quick responses
- ▶ Information overload during onboarding - ask questions - HR is your partner

Recommended reading:

The First 90 Days by Michael D. Watkins



THANK YOU!



Susie Martin
Director of Human Resources

7200 NW Front Avenue
Portland, Oregon 97210



www.siltronic.com

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Ask Me Anything: A Day in the Life of a Semiconductor Engineer



MODERATOR:

Damian Scandiffio

Acara Solutions



**Mariana Castillo
Acosta**

Mechanical
Engineer

**Edwards
Vacuum**



Jordan Pifer

Project
Engineer

**JE Dunn
Construction**



Beste Olcer

Industrial
Engineer

**MSEI - Micro
Systems
Engineering**



David Zier

Senior
Manager, DL
System
Software

NVIDIA



April James

Software
Engineer

Siltronic



Paige Sedgwick

Process
Engineer

SSOE



Eunice Baek

Technical
Support
Engineer

TEL



Job Opportunities with Sponsors

THANK YOU TO OUR SPONSORS





JE DUNN COMPANY OVERVIEW



JE DUNN ESTABLISHED IN

1924

GENERAL CONTRACTOR

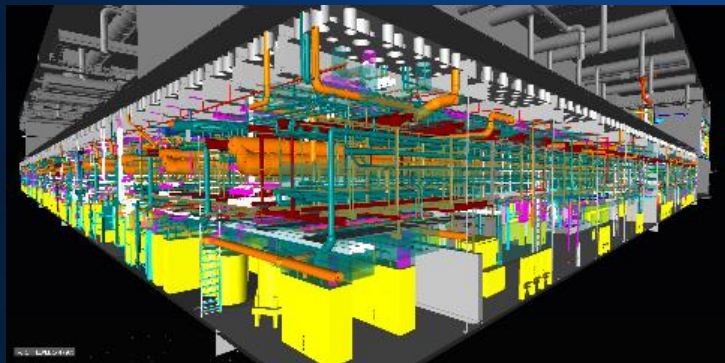
CONSTRUCTION MANAGEMENT
SERVICES, DESIGN-BUILD AND
INTEGRATED PROJECT DELIVERY

& HEADQUARTERED IN
KANSAS CITY, MO

Geographic Footprint

Advanced Industries Experience





200+

Projects
Completed

3rd

ENR Ranking
Semiconductor
Manufacturing
Contractor

2nd

Portland
Business Journal
General Contractor

\$5B

Performed
d
ACROSS THE
COUNTRY

Revenue
\$225
Million
2024

2024
US Best
Managed
Companies

CURRENTLY HIRING FOR

Campus Intern (traveling)

Project Engineer (traveling)

Project Engineer

Field Engineer/Project Engineer

“Get the best people you can get, give them interesting and challenging work and let them share whatever rewards there are in the company.”

~ Ernie Dunn S. (1893-1964),
Founder, JE Dunn Construction

ENR Rankings

ENR INDUSTRY RANKINGS FOR JE DUNN

TOP 100 CONTRACTORS BY NEW CONTRACTS	11
TOP 100 CONSTRUCTION MANAGERS CM@RISK	9
TOP 400 CONTRACTORS	16
TOP 50 DOMESTIC GENERAL BUILDING	8
MANUFACTURING-SEMICONDUCTORS	3
TELECOMMUNICATIONS-DATA CENTERS	7

TOM HEGER

Email : tom.heger@jedunn.com

TEL : 816.309.8264

Website : www.jedunn.com



THANK YOU



▶▶ EMPLOYMENT OPPORTUNITIES

FULL-TIME ENTRY LEVEL

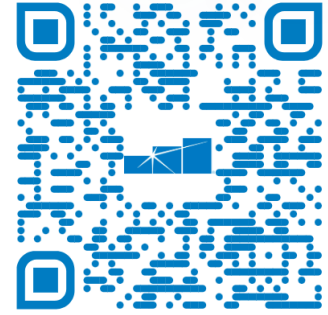
Whether you are joining the company as a former intern or a recent graduate, we have numerous opportunities to help jump start your career.

- Diversified industries, allowing for endless future career opportunities
- Intentional investment in career advancement
- Your work will positively impact the community

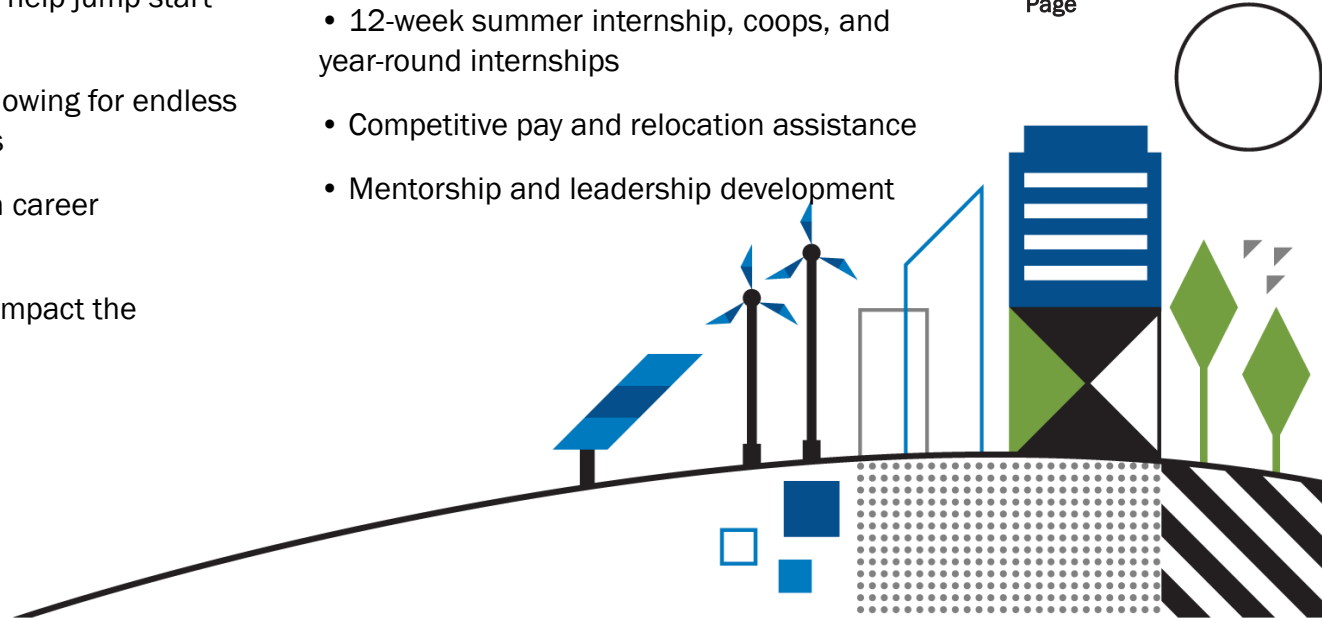
INTERNSHIP PROGRAM

Interns are our primary pipeline into full-time job opportunities.

- 12-week summer internship, coops, and year-round internships
- Competitive pay and relocation assistance
- Mentorship and leadership development



Scan for Company
Website/Careers
Page

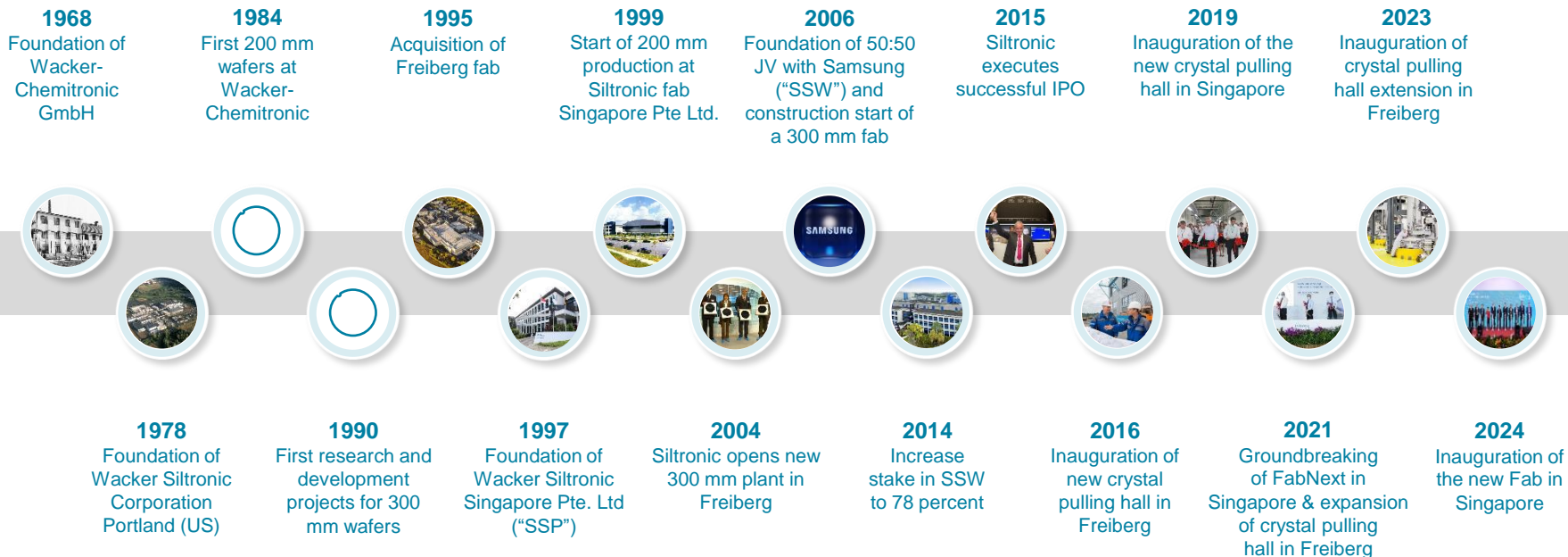




SILTRONIC OPPORTUNITIES

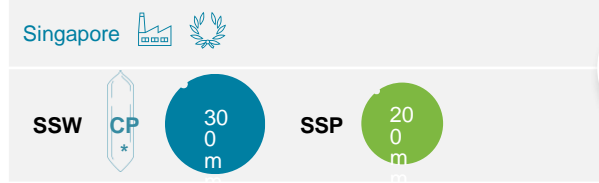
Matt Kleinke
Vice President Sales & Applications - Americas
January 16, 2025

50+ YEARS OF HISTORY – A STORY OF SUCCESS AND INNOVATION



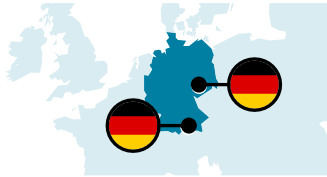
INTERNATIONAL PRODUCTION NETWORK SERVES CUSTOMERS AROUND THE GLOBE

Singapore



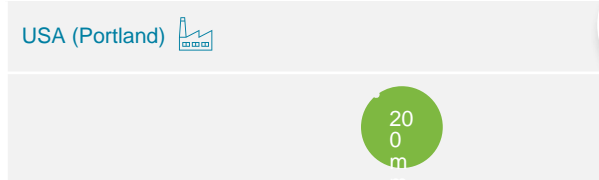
300 mm
volume production in
Germany & Singapore

Germany



R&D
hub in Burghausen

USA

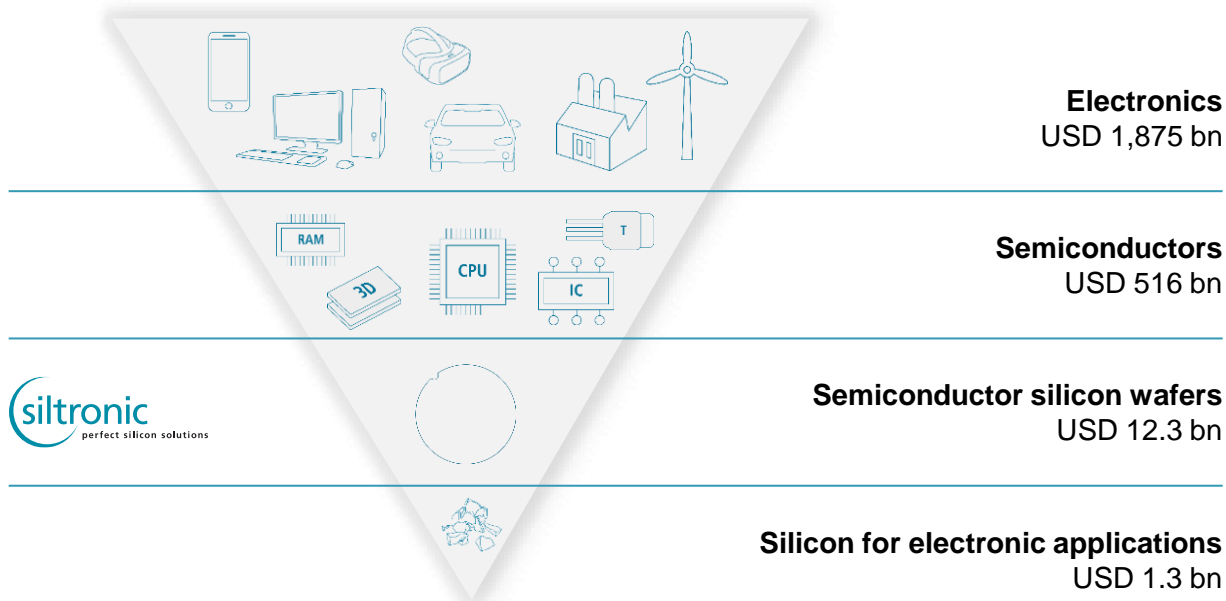


**Leading
Edge**
production

R&D = Research and Development
CP = Crystal Pulling

EXPANSION OF ELECTRONICS VALUE CHAIN WILL DRIVE SEMICONDUCTOR AND WAFER GROWTH

Electronics value chain (figures for 2023)⁽¹⁾



99%

of the semiconductor value chain is based on silicon



USD 1 tn

semi sales at the end of this decade⁽²⁾

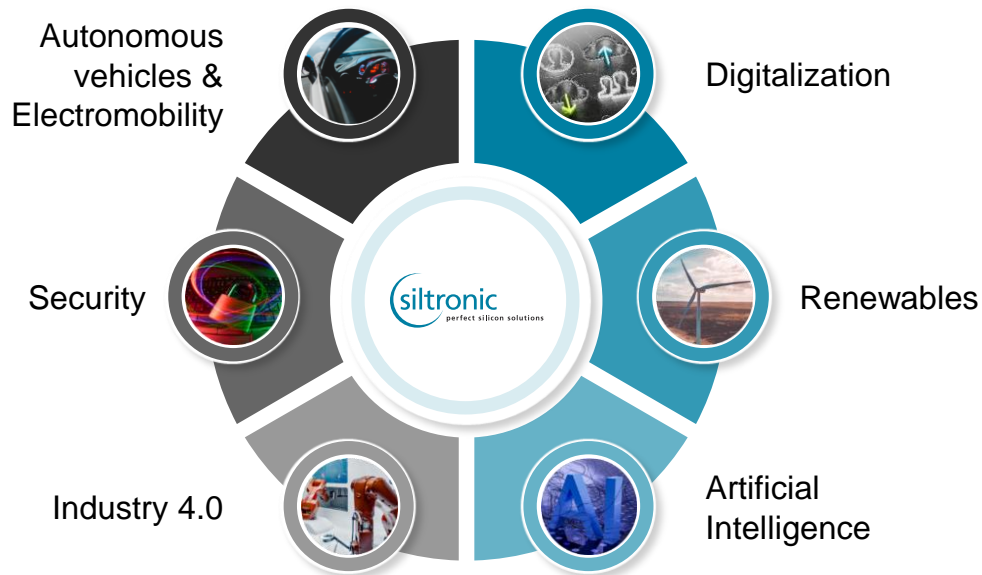


Crucial

for the whole value chain

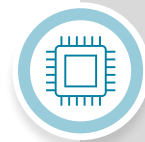
Source: 1 TechInsights, WSTS (Silicon based), SEMI SMG, Siltronic Marketing I 2 McKinsey

MEGATRENDS WILL DRIVE WAFER DEMAND



Siltronic

well positioned to support each megatrend



All segments

will participate and Power with over proportional growth



Key benefits

from strategic focus on Leading Edge and Power market

CURRENT OPEN OPPORTUNITIES AT SILTRONIC PORTLAND

Equipment Engineer



Production Operator



Customer Service Representative



Check back often
at
www.siltronic.com

Visit us at our
table!

JOIN SILTRONIC



MATT KLEINKE

Vice President Sales & Applications – Americas

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Tel: +1 503-360-7869

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SSOE Group

- Established in 1948
- Privately-owned

Our Mission:

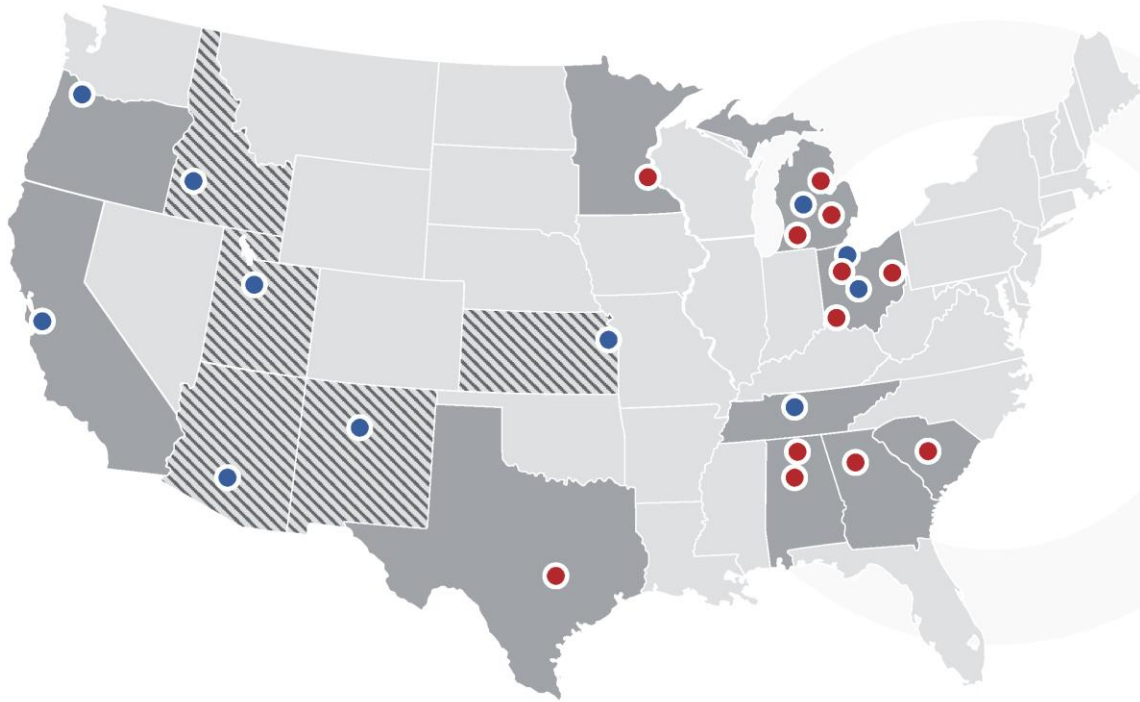
To deliver unparalleled client value that advances the AEC industry.

Our Vision:

Designing and building the future for our clients, colleagues, and communities.



Semiconductor Support Locations



Semiconductor Support Locations

- Columbus, OH
- Hillsboro, OR
- Nashville, TN
- Santa Clara, CA
- Toledo, OH

Client Location Support

- Boise, ID
- De Soto, Kansas
- Lehi, UT
- Phoenix, AZ
- Rio Rancho, NM
- Central - MI

Other U.S. Offices

- Atlanta, GA
- Austin, TX
- Birmingham, AL
- Cincinnati, OH
- Columbia, SC
- Huntsville, AL
- Kalamazoo, MI
- Lima, OH
- Midland, MI
- St. Paul, MN
- Troy, MI

Markets

Industrial Solutions

- **Semiconductor and Advanced Technology**
- Automotive
- Battery Manufacturing
- Chemical
- Consumer Products
- Distribution Centers
- Energy / Power
- Food and Beverage
- Glass
- Manufacturing
- Pharmaceutical

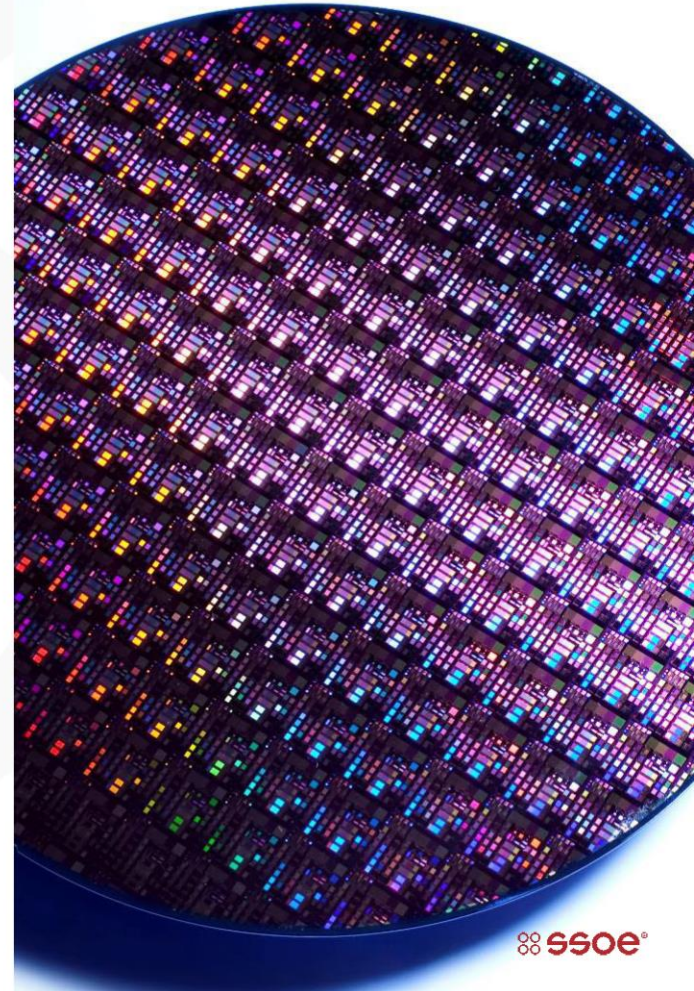
Architecturally Driven Solutions

- Corporate Workplace
- Government / Judicial
- Healthcare
- Higher Education
- Historic Preservation and Adaptive Reuse
- K-12 Education
- Residential / Hospitality
- Workforce Development

Facilities Engineering

- **Multi-Disciplinary Firm**

- Mechanical, Electrical, Chemical / Process, Structural, Architecture, Project Management.
- Experts who deliver high-quality cleanroom facilities and everything that goes with them
- Provide complete and cost-effective project solutions
- Tool Install Design – first-of-its kind training program developed by SSOE employees.



Top Ranked Firm



No. 2

Ranked
Semiconductor Design
Firm (ENR 2024)



No. 2

Ranked
Manufacturing Design
Firm (ENR 2024)

Site Master Planning

Core and Shell

Utility Systems

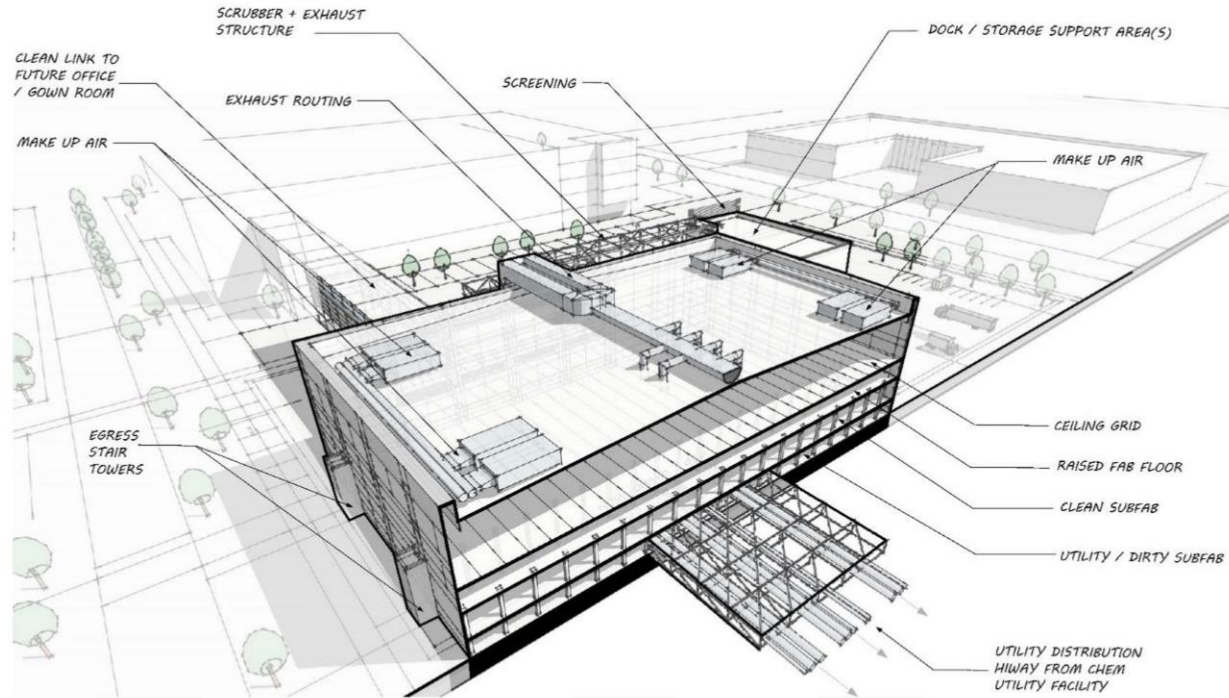
Distribution Laterals

Tool Install

Fabrication Detailing

Data Driven Project Execution

Big Enough to Win Interesting Jobs, Small Enough for a Great Corporate Culture



- [CHIPS Act](#) and markets mean work isn't slowing down any time soon
- Certified "[Great Place to Work](#)" since 2016

- Exciting projects:
 - Modular and off-site fabrication for Subfab lateral design
 - Design process automation leaders
 - New build & retrofit projects with top semiconductor companies

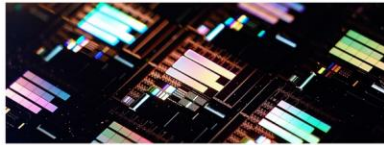
Career Opportunities at SSOE

Scan the QR code, or visit www.ssoe.com/careers/



MEET

TEL





Networking with Industry Leaders

Thanks for Coming Today!!

