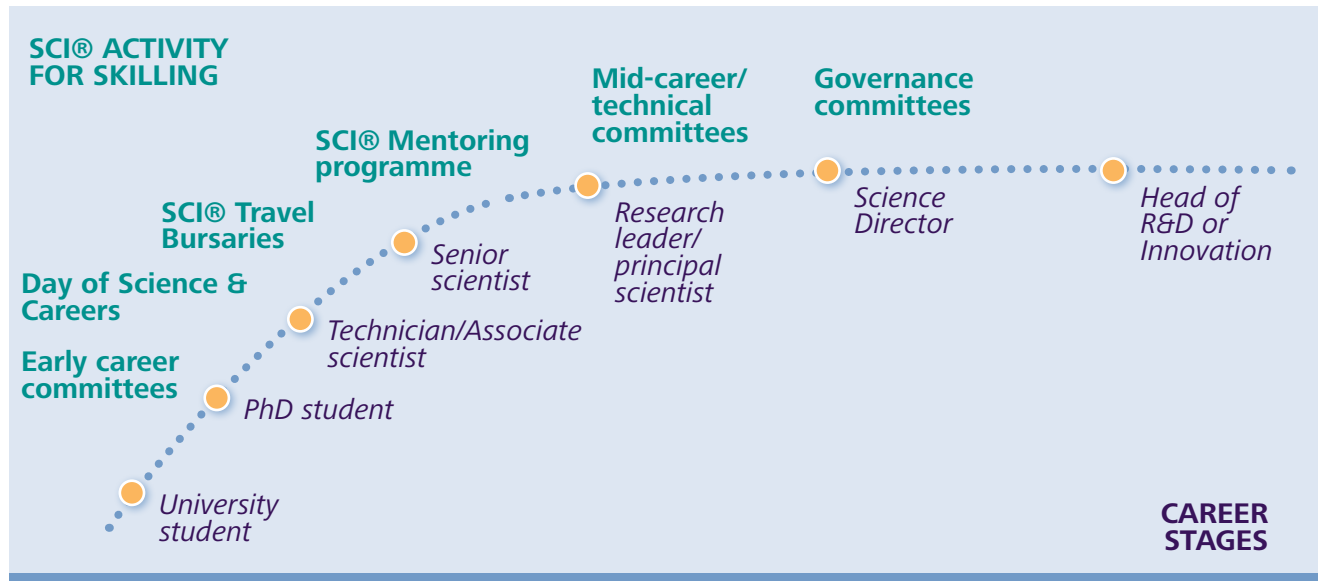


SOCIETY OF CHEMICAL INDUSTRY

CAREER PATHS



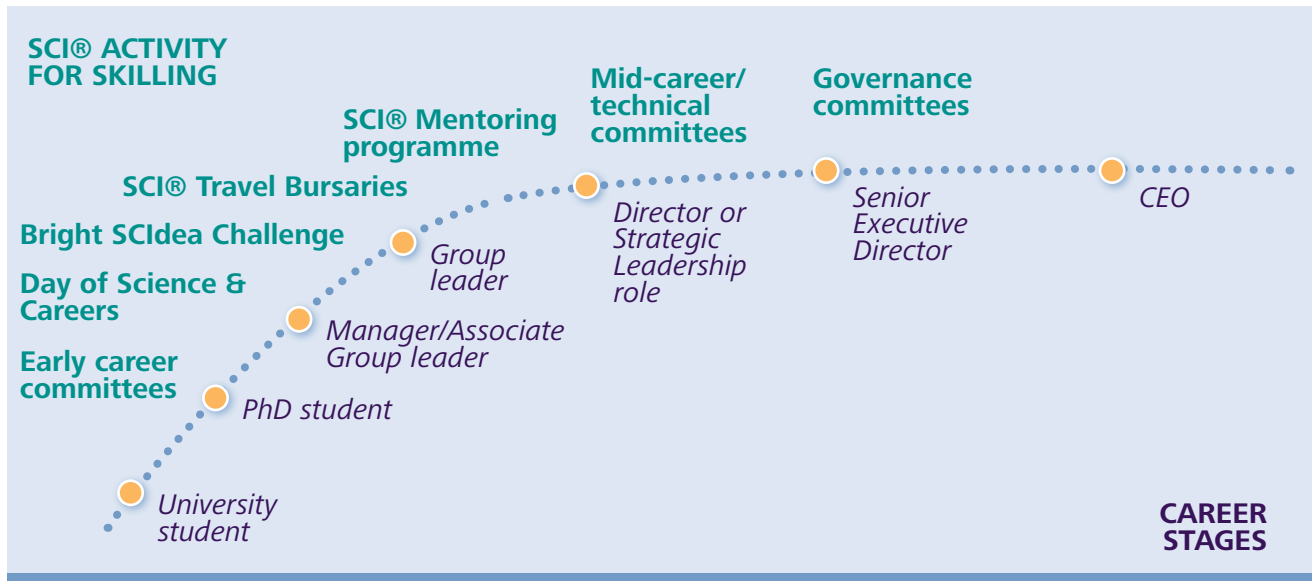
HEAD OF R&D, TECHNICAL PATHWAY



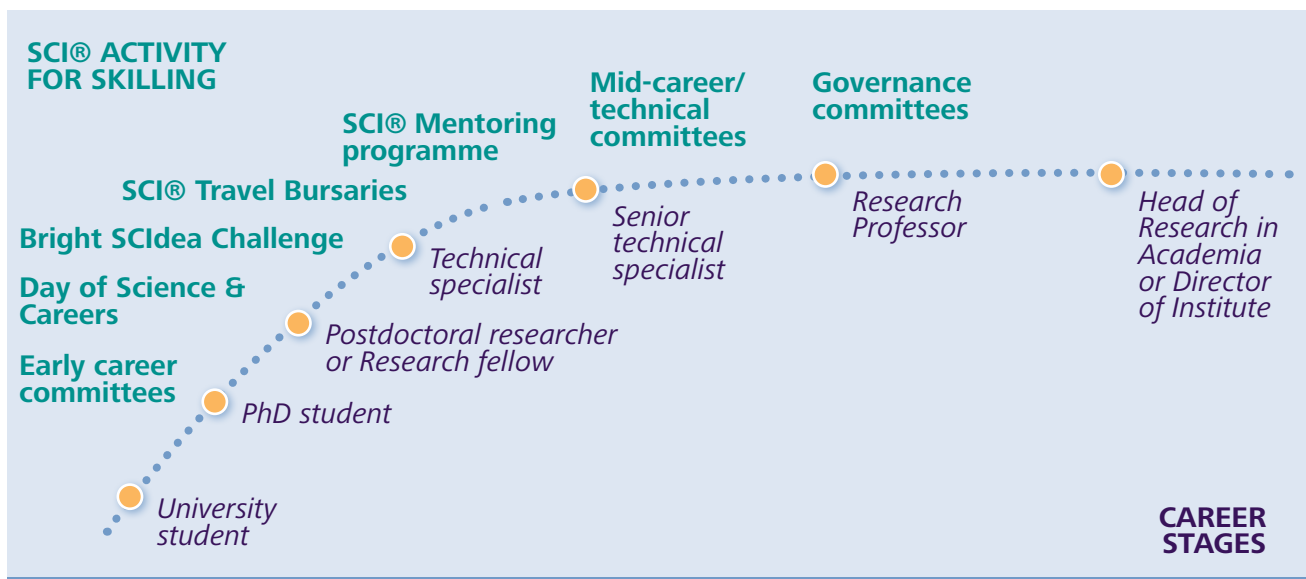
Qualifications in science can provide many opportunities and different career path options - SCI's Careers Committee has developed a matrix of a few possible career paths related to the chemical industry for you to explore, including the different stages of a career and how SCI can support wherever you are on your career path. The career arcs show an example of some of these options, and further detail can be found in the rest of this document.



COMMERCIAL PATHWAY



ACADEMIC INTERACTING WITH INDUSTRY



ACADEMIC RESEARCH

| | |
|----------------------------|--|
| STRATEGIC LEADER | HEAD OF DEPARTMENT, SCHOOL OR RESEARCH INSTITUTE |
| FUNCTIONAL LEADER | PROFESSOR |
| LEADING OTHERS | ASSOCIATE PROFESSOR |
| DIRECTING PROJECTS | INDEPENDENT RESEARCH FELLOW |
| DELIVERING PROJECTS | POSTDOCTORAL RESEARCHER |

INDUSTRIAL RESEARCH

| | |
|----------------------------|---------------------|
| STRATEGIC LEADER | SCIENTIFIC FELLOW |
| FUNCTIONAL LEADER | PRINCIPAL SCIENTIST |
| LEADING OTHERS | SENIOR SCIENTIST |
| DIRECTING PROJECTS | SCIENTIST |
| DELIVERING PROJECTS | ASSOCIATE SCIENTIST |

TECHNOLOGY MANAGEMENT

| | |
|----------------------------|----------------------------|
| STRATEGIC LEADER | EXECUTIVE SCIENCE DIRECTOR |
| FUNCTIONAL LEADER | SCIENCE DIRECTOR |
| LEADING OTHERS | SENIOR TECHNICAL MANAGER |
| DIRECTING PROJECTS | TECHNICAL MANAGER |
| DELIVERING PROJECTS | TECHNICAL SUPERVISOR |

MANUFACTURING

| | |
|----------------------------|-------------------------------|
| STRATEGIC LEADER | EXECUTIVE OPERATIONS DIRECTOR |
| FUNCTIONAL LEADER | OPERATIONS DIRECTOR |
| LEADING OTHERS | PLANT MANAGER |
| DIRECTING PROJECTS | OPERATIONS MANAGER |
| DELIVERING PROJECTS | OPERATIONS ASSOCIATE |

COMMERCIAL

| | |
|----------------------------|-------------------------------|
| STRATEGIC LEADER | EXECUTIVE COMMERCIAL DIRECTOR |
| FUNCTIONAL LEADER | COMMERCIAL DIRECTOR |
| LEADING OTHERS | SENIOR COMMERCIAL MANAGER |
| DIRECTING PROJECTS | COMMERCIAL MANAGER |
| DELIVERING PROJECTS | SALES ASSOCIATE |

SCI "CAREER"



ACADEMIC RESEARCH

| | |
|----------------------------|--|
| STRATEGIC LEADER | HEAD OF DEPARTMENT, SCHOOL OR RESEARCH INSTITUTE |
| FUNCTIONAL LEADER | PROFESSOR |
| LEADING OTHERS | ASSOCIATE PROFESSOR |
| DIRECTING PROJECTS | INDEPENDENT RESEARCH FELLOW |
| DELIVERING PROJECTS | POSTDOCTORAL RESEARCHER |



HEAD OF DEPARTMENT, SCHOOL OR RESEARCH INSTITUTE

STRATEGIC LEADER

Strategic leadership of departmental research programmes
 Collaborates widely with academic and industry partners
 Supports and reviews grant applications for own group and wider university department
 Responsibility for quality and effectiveness of teaching

PROFESSOR

FUNCTIONAL LEADER

Delivers research programmes in a broad scientific field
 Collaborates widely with academic and industry partners
 Supports and reviews grant applications for own group and wider university department
 Develops new educational material for department

ASSOCIATE PROFESSOR

LEADING OTHERS

Delivers research projects or programmes in field of expertise through direction of a research group
 Develops new collaborations to broaden research impact
 Writes publications and grant applications for own funding
 Small-group teaching and lecturing

INDEPENDENT RESEARCH FELLOW

DIRECTING PROJECTS

Delivers research projects or programmes in field of expertise through direction of Master's & PhD students
 Acts to broaden scientific understanding and research approaches
 Writes publications and grant applications for own funding
 Small-group teaching

POSTDOCTORAL RESEARCHER

DELIVERING PROJECTS

Supports principal investigator to deliver a research programme through experimental work
 Acts to broaden scientific understanding and research skills
 Prepares publications and small grant applications
 Mentors PhD and Master's students

INDUSTRIAL RESEARCH

| | |
|----------------------------|---------------------|
| STRATEGIC LEADER | SCIENTIFIC FELLOW |
| FUNCTIONAL LEADER | PRINCIPAL SCIENTIST |
| LEADING OTHERS | SENIOR SCIENTIST |
| DIRECTING PROJECTS | SCIENTIST |
| DELIVERING PROJECTS | ASSOCIATE SCIENTIST |



SCIENTIFIC FELLOW

STRATEGIC LEADER

Externally recognised expert and represents organisation on industry, academic or government panels
Has a detailed understanding in a range of technical areas for complex problem solving
Mentors/coaches across the field
Materialises opportunities from wide network of industries

PRINCIPAL SCIENTIST

FUNCTIONAL LEADER

Oversees a wide range of projects and provides expert knowledge to solve complex problems.
Leverages technical expertise across local teams and R&D networks, and is the consultant in certain fields
Guides and coaches group members
Materialises opportunities from network within the industry

SENIOR SCIENTIST

LEADING OTHERS

Leads technical programmes including delegation of work
Develops new products, applications or capability in a range of technologies
Builds an external network within the industry
Uses business strategy to support technical decisions

SCIENTIST

DIRECTING PROJECTS

Leads technical work packages including delegation of work
Develops new products, applications or capability with the support of experienced staff
Develops relevant technology expertise and insights
Applies a high level of scientific rigor to the analysis & assessment of data

ASSOCIATE SCIENTIST

DELIVERING PROJECTS

Independently plans and executes technical work packages
Analyses data to draw and present conclusions
Develops technology know-how and capability in relevant technical fields
Flexibility to apply skills across different areas,
e.g. synthesis, application, analysis.



TECHNOLOGY MANAGEMENT

| | |
|----------------------------|----------------------------|
| STRATEGIC LEADER | EXECUTIVE SCIENCE DIRECTOR |
| FUNCTIONAL LEADER | SCIENCE DIRECTOR |
| LEADING OTHERS | SENIOR TECHNICAL MANAGER |
| DIRECTING PROJECTS | TECHNICAL MANAGER |
| DELIVERING PROJECTS | TECHNICAL SUPERVISOR |



EXECUTIVE SCIENCE DIRECTOR

STRATEGIC LEADER

Develops innovation strategies to deliver company-wide business objectives
 Ensures company-level capability build against business and group strategies
 Accountable for delivery of innovation programme and adherence to budgets
 Represents company in strategic technology or external bodies

SCIENCE DIRECTOR

FUNCTIONAL LEADER

Defines the strategic innovation programme for department and accountable for delivery
 Accountable for strategic capability development within department
 Prepares and accountable for the departmental budget
 Actively develops collaborations within the wider community

SENIOR TECHNICAL MANAGER

LEADING OTHERS

Supports the definition of the strategic innovation programme within department
 Supervises and develops a number of managerial or scientific staff to deliver projects and build capability
 Manages revenue spend within the departmental budget
 Creates and maintains internal and external networks

TECHNICAL MANAGER

DIRECTING PROJECTS

Executes technical programmes and works with commercial teams to identify new business opportunities
 Manages performance and development of team
 Aligns delivery of projects and work packages with other functions. e.g., Operations, Commercial etc.
 Creates and maintains internal networks

TECHNICAL SUPERVISOR

DELIVERING PROJECTS

Manages daily execution of experimental work in the laboratory
 Develops new lab methods and capabilities with the team
 Sets priorities for the technician team based on the business requirement
 Networks with other supervisors and technical managers



MANUFACTURING

| | |
|----------------------------|-------------------------------|
| STRATEGIC LEADER | EXECUTIVE OPERATIONS DIRECTOR |
| FUNCTIONAL LEADER | OPERATIONS DIRECTOR |
| LEADING OTHERS | PLANT MANAGER |
| DIRECTING PROJECTS | OPERATIONS MANAGER |
| DELIVERING PROJECTS | OPERATIONS ASSOCIATE |



EXECUTIVE OPERATIONS DIRECTOR

STRATEGIC LEADER

Accountable for the Operations function and production networks within organisation
 Delivery of production output safely to a high quality with the right cost basis
 Prepares and accountable for the organisation's operational budget
 Develops improvement programmes and identifies the strategy to deliver these

OPERATIONS DIRECTOR

FUNCTIONAL LEADER

Accountable for the Operations with a production network, e.g., region
 Delivers production output safely, to a high quality, and in budget
 Prepares and accountable for the network's capital budget
 Defines operational improvement & organisational development programmes across multiple sites

PLANT MANAGER

LEADING OTHERS

Accountable for all operations at a manufacturing site
 Delivers the required production output safely to a high quality, "on-time in-full" with the right cost basis
 Prepares and is accountable for the site's capital budget
 Implements and delivers continuous improvement programmes at site

OPERATIONS MANAGER

DIRECTING PROJECTS

Accountable for a specific function at a manufacturing site
 Delivers the required activities and projects safely to a high quality within function area
 Management of spend within the functional budget
 Delivers continuous improvement programmes in functional area

OPERATIONS ASSOCIATE

DELIVERING PROJECTS

Executes day-to-day activities in a specific function at a manufacturing site, e.g., engineering, production unit
 Supervises plant operators to deliver activities safely and to a high quality
 Manages operational spend in functional area
 Identifies continuous improvement areas in functional area

COMMERCIAL

| | |
|----------------------------|-------------------------------|
| STRATEGIC LEADER | EXECUTIVE COMMERCIAL DIRECTOR |
| FUNCTIONAL LEADER | COMMERCIAL DIRECTOR |
| LEADING OTHERS | SENIOR COMMERCIAL MANAGER |
| DIRECTING PROJECTS | COMMERCIAL MANAGER |
| DELIVERING PROJECTS | SALES ASSOCIATE |



EXECUTIVE COMMERCIAL DIRECTOR

STRATEGIC LEADER

Accountable for the delivery of business and financial objectives within organisation
 Sponsors high-impact business initiatives to drive profitable growth
 Accountable for the organisation's budget delivery
 Develops strategies for business growth and market extension

COMMERCIAL DIRECTOR

FUNCTIONAL LEADER

Accountable for the delivery of business and financial objectives within a business group
 Executes and delivers high-impact business initiatives
 Accountable for the business area budget delivery
 Identifies strategic opportunities for profitable growth & market extension

SENIOR COMMERCIAL MANAGER

LEADING OTHERS

Accountable for the delivery of business and financial objectives within a market segment
 Executes and delivers business initiatives to drive profitable growth
 Accountable for the market segment budget delivery
 Identifies strategic opportunities for business growth

COMMERCIAL MANAGER

DIRECTING PROJECTS

Accountable for the delivery of business and financial objectives within a business team e.g., country
 Initiates and delivers business initiatives to drive profitable growth
 Accountable for the business team budget delivery
 Identifies opportunities for business growth in the business team

SALES ASSOCIATE

DELIVERING PROJECTS

Accountable for commercial activities and sales at a customer group
 Delivers business initiatives to drive profitable growth with customer group
 Accountable for the customer group budget delivery
 Identifies sales opportunities for business growth at customer group

SCI "CAREER"

Below is a list of SCI activities that can support you at each of these career levels

STRATEGIC LEADER

Governance committees or Board of Trustees
 SCI mentor to mid career
 SCI medals and awards
 SCI mentor to mid career

FUNCTIONAL LEADER

Mid-career/technical committees
 RiGs & TiGs Committee (Vice) Chair
 Leading SCI networking events
 SCI Governance committee members
 Technical Conference Leading
 SCI mentor to mid career

LEADING OTHERS

Mid-career/technical committees
 SCI Mentoring programme (mentee mid-career)
 SCI networks & conferences
 RiGs & TiGs Committee Member
 Technical Conference Organisation
 Participating in SCI networking events
 SCI mentor to early career

DIRECTING PROJECTS

Early career committee member
 SCI Travel Bursaries
 SCI Mentoring programme (mentee early career)
 RiGs & TiGs participation
 Technical Conferences

DELIVERING PROJECTS

College of Scholars
 Day of science & careers
 Bright SCIdea Challenge
 SCI Travel Bursaries
 RiGs & TiGs participation
 Technical Conferences
 SCI Mentoring programme (mentee early career)

