

SIEMENS

SIEMENS PROCESS SYSTEMS ENGINEERING

Early Career
Opportunities

Advanced Process Modelling **software, services & solutions**

- Spun out of Imperial College **1997**
- gPROMS equation-oriented **technology**
- 280+ staff members **>80 PhDs**
- Acquired by Siemens in **2019**

// We bring next-generation modelling & optimization technology, methodologies and workflows to the process industries.

Siemens Process Systems Engineering
Creating and deploying Digital Process Twins



Welcome to Siemens PSE

Who we are

Sustainability considerations are driving major changes in the process industries.

As an innovation and technology leader, Siemens Process Systems Engineering (SPSE) is at the forefront of the development and application of digital process design and operations technologies. These are helping companies to develop new, cleaner processes and reduce emissions from existing plants without the need for major capital expenditure.

We do this using our gPROMS advanced process modelling technology, which captures deep process knowledge in mathematical models. Advanced mathematical techniques manipulate these models to explore the process decision space and optimize process design and operation, rapidly and effectively.

What we provide

In addition to our gPROMS software, we provide consulting services and model-based solutions implemented on customers' operating plants.

Our customers

Our customers include the largest companies in the major process industry sectors, with particular focus on pharmaceuticals, chemicals & petrochemicals, oil & gas, food, clean energy and power & CCS. We also work closely with innovative start-ups, to help them bring new sustainable processes to market rapidly.

Find out more about our company, technology and services:

www.psenterprise.com/company



During my three-month internship at Siemens PSE **I was able to apply the knowledge** acquired in my Chemical Engineering degree to real-world problems.

David Naylor

Intern Engineer, Formulated Products

Internship programmes

We offer three types of Internships across our main business and development areas: Energy & Chemicals, Formulated Products, Digital Applications and Software Development.

Summer Internship: 12 weeks

Industrial Placement: 24 weeks

Year in Industry: 12 months

Internship purpose

We believe that the prime purpose of internships is to provide interns with a meaningful experience that enhances their employability and skills. To ensure that your internship is relevant, we strive to engage you on real projects that deliver value for the company. This way, you get to work in a real team situation and gain real business experience. Of course, we benefit too! Your work creates value, you bring new skills and perspectives, and we get to see a potential future employee in action.

Internship mentorship

Each intern is allocated a supervisor – a dedicated person to guide you during your project, conduct regular performance reviews and provide ongoing feedback. Your supervisor will be your advocate and mentor, provide career advice and discuss future development, and conduct a formal review to evaluate the success of your time with SPSE.



My time as an intern at SPSE has been highly engaging and rewarding. **I feel that I and my work are valued by SPSE.**

Matthew Reading

Intern Engineer, Formulated Products

Training programmes

Summer Internship

Trainings

We provide a comprehensive induction plan for interns completing a 12-week placement.

The induction takes up to a week. It is an opportunity for the student, supervisor and team to get to know each other and build a good relationship from the start, based on an understanding of your previous experience, your goals, likely necessary areas for development, and expectations on each side.

For interns involved in modelling, there are also online training presentations and webinars available to help you hit the ground running.



Industrial placement and year in industry

Trainings

For interns completing their 24-week and 12-month placements, we offer a variety of internal training to provide you with more in-depth knowledge of our technology, products and services.

This includes interactive workshops run by SPSE Application Engineers that ensure that you understand the basics of SPSE's gPROMS software and are able to create robust, fit-for-purpose models by applying best modelling practice:

gPROMS Developing custom unit operation models

2 days + follow-on examples / workshop

gPROMS Publishing models for use across the organisation

2 days + 1 day + follow-on examples / workshop

gPROMS Optimization and model validation

2 days + follow-on examples / workshop

Understanding of the chemical phenomena to be modelled

Graduate scheme programme

What is the SPSE graduate scheme?

The graduate scheme is a work-based training programme accredited by the IChemE that combines formal training, structured on-the-job learning experience and mentoring. It provides our new recruits with effective and efficient training – combined with hands-on practical experience – that gets your career off to a flying start.

What are the benefits?

The scheme provides graduates with a high-quality learning experience that allows you to discover and develop your interests and strengths, and determine where you would like to focus the next stage of your career. For SPSE, it enables our graduate recruits to develop into well-rounded individuals early in their career, and provides us with a structured and scalable approach for developing the next generation of leaders.



Which roles are covered and who is eligible?

Individuals joining SPSE as their first job after completing a BEng or MEng equivalent degree. The roles covered include Product Development, Consulting and Applications Engineering.

What is the rotation scheme?

Where possible, we will include you in a rotation scheme that helps to round your career by giving you experience of different aspects of the business area for which you were recruited. Rotation timings for all graduates on the scheme are coordinated and monitored for the two-year duration of the scheme.

A rotation is defined as:

'A period of 6 months during which the individual will work and focus primarily on a specific activity or group of related activities' OR 'Periods of 12 months during which the graduate will work and focus on their hiring basis function for 50% of their time and on a non-hiring basis function for remainder of their time.'

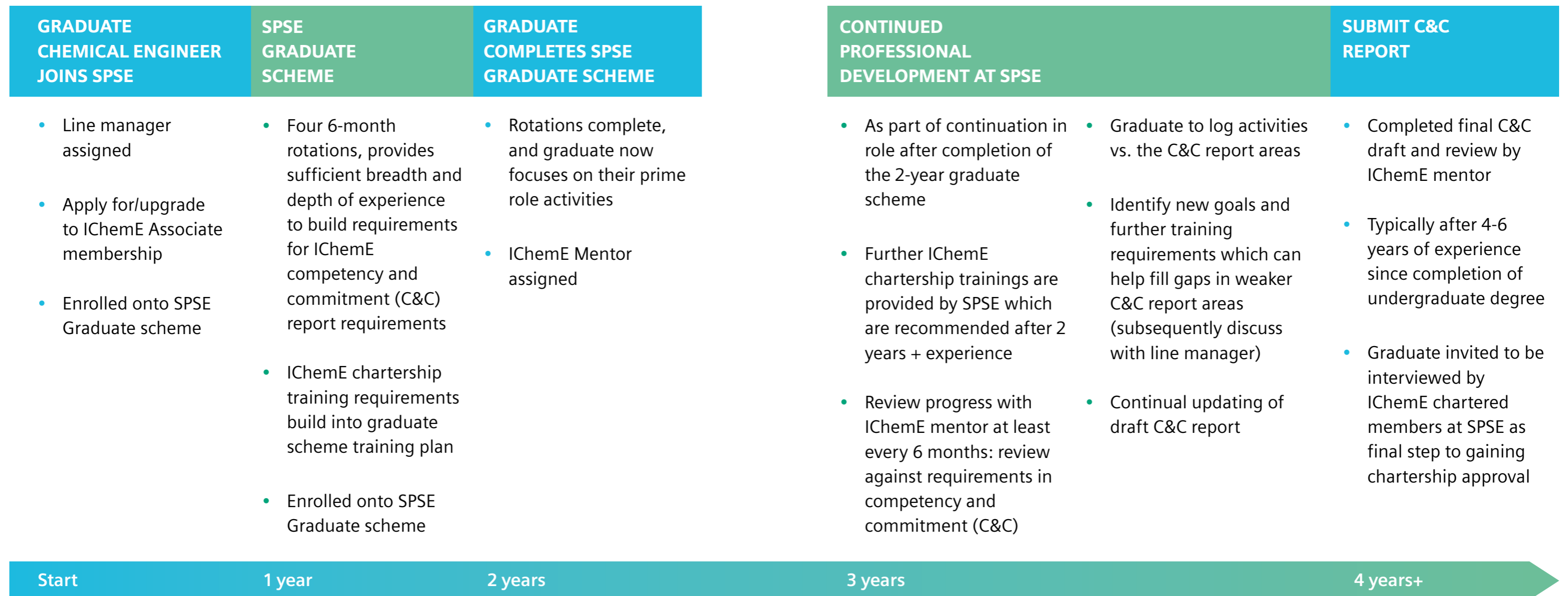
The percentage of time may vary depending on the specific development needs of the graduate and business requirements.

Graduate scheme timeline

Graduate Scheme and IChemE Chartership

How are they linked? The road map below is for graduate chemical engineers to obtain IChemE chartered member status at SPSE.

- Milestones**
- Ongoing activities**



Graduate training programme

As part of the graduate programme, the new employee will undergo a comprehensive training and development as showing below:

TRAINING NAME	RECOMMENDED TIMING TO ATTEND*	CURRENT FREQUENCY
Technical trainings		
gPROMS Custom Modelling training	First 3 months	Every 2 months
gPROMS Publishing Models for use across the organisation	First 3 months	Every 2 months
Physical Properties, gPROMS Properties (incl. SAFT) & Multi-flash	3-6 months	Annual
First principles modelling	6 months	Annual
Discretization	1 year	Annual
Numerical solutions workshop	1-2 years	Annual
gPROMS Advanced Optimization topics	1-2 years	Annual
Other trainings		
Time Management Annual	3-6 months	As required
Project Management Annual	3-6 months	As required
Technical Report Writing Annual	1 year	As required
Working in Teams Annual	3-6 months	As required
Presentation Skills Annual	1-2 years	As required

*Timings can be adjusted for specific roles to match the needs of specific rotations. The recommendation stated is based on SPSE's IChemE Accredited Training Programme Guide.

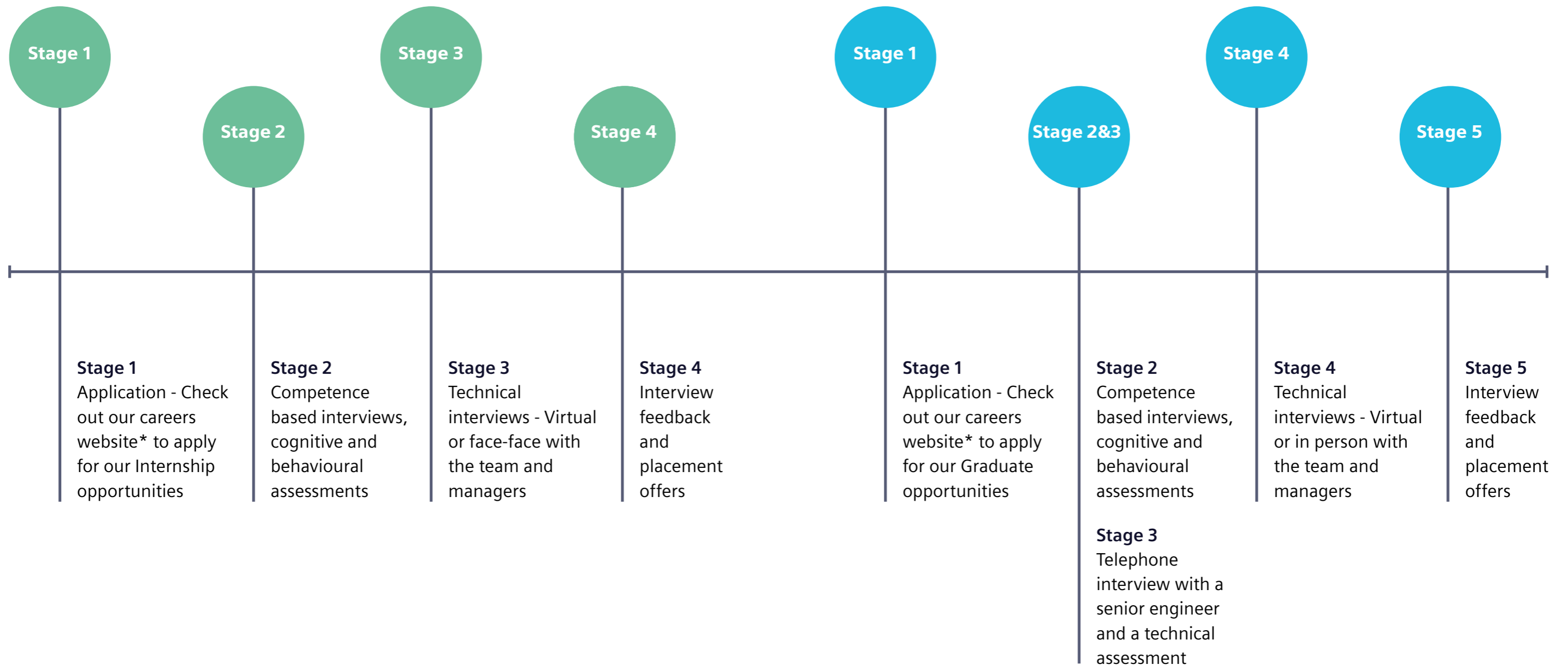


“ Since joining the SPSE Graduate Scheme, I felt challenged and motivated. **My work was implemented in the next release of gPROMS Process.** ”

Parimal Patel
Applications Engineer, Energy & Chemicals

Internship recruitment process

Graduate recruitment process



*www.psenderprise.com/company/careers

We look forward to **receiving your application**

Published by Siemens Process
Systems Engineering

You can apply directly at
[www.psenderprise.com/
company/careers](http://www.psenderprise.com/company/careers)

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We are an equal
opportunity employer.
We celebrate diversity
and are committed to
creating an inclusive
environment for all
employees.

Siemens Process Systems Engineering
Creating equal opportunities



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