

# Curriculum Vitae

## Personal information

First names / SURNAME

Nationality

Date of birth

Gender

**Adrianus Cornelis Catharina (George) SIPS**

The Netherlands

## Work experience

**Dates**

**Since 1-October 2020**

Occupation or position held

Director of Operations at the DIII-D National Fusion Facility

Name and address of employer

General Atomics Court, San Diego, 92121, U.S.

Type of business or sector

Program Manager VI

**Tasks**

Director of the DIII-D Operations Division, which has five groups with a total of 85 people and an annual operations budget of \$60M. The main systems are RF heating, NB heating, Tokamak Operations, Mechanical systems (water, cryogenics and vacuum), Electrical systems (HV and coil power supplies) and a Chief Engineer Unit for enhancements and their integration into DIII-D. I am overseeing Operation and Shutdown phases of DIII-D and providing, as part of the senior manager team, critical and strategic direction necessary for the success of the DIII-D National Fusion Facility, operated by General Atomics for the US Department of Energy.

**Dates**

**1-February 2020 to 30-September 2020**

Name and address of employer

European Commission – CDMA 21, Brussels, Belgium

Type of business or sector

Programme management

**Tasks**

Manage projects in the field of nuclear fission waste management. Responsible for the evaluation of Euratom funded research on integrated numerical simulations of the decommissioning of fission plants, the development of laser cutting tools for dismantling reactor cores, decommissioning of graphite rods from nuclear power stations and innovative ways of processing medium and high-level nuclear waste.

**Dates**

**1-January 2014 to 31-January 2020**

Occupation or position held

Leader of the Operations Group – JET Exploitation Unit

Deputy to JET Exploitation Manager

Name and address of employer

European Commission – Seconded to the JET Exploitation Unit, Culham, UK

Type of business or sector

Research and programme management

**Tasks**

Manage the resources required for JET Operations. Monitor and set performance targets for the Operator (UKAEA) under the Joint Operating Contract with the European Commission. Organise JET restarts, commissioning and experimental campaigns. Assists in preparing the future programme for JET, including DT operation. Provide input and reports for the preparation of DT at JET at various review committees. Analyses of experiments from JET and data from dedicated experiments at various devices (AUG, C-Mod, DIII-D and JT-60U) for ITER scenario development. Member of various programme review committees. Leader of the Data Access Analyses and Archiving project, in preparation for an anticipated closure of JET in 2020/21.

<b>Dates</b>	<b>1-January 2009 to 31-December 2013</b>
Occupation or position held	Head of the Operation Group - Close Support Unit at EFDA-JET, Culham, UK
Name and address of employer	Deputy to Head of the Programme Department at EFDA-JET
Type of business or sector	European Commission – Seconded to EFDA –JET, Culham, UK
<b>Tasks</b>	Research and programme management
	Coordinated the preparation of the experimental campaigns with the Operator (CCFE) and Task Force Leaders at JET. Reviewed the readiness for operations of the various systems at JET to optimise the sequence of campaigns, restarts and shutdowns, giving regular evaluation reports of the JET Operator. Lead author of reports to STAC and the EFDA-SC on the scientific case and operational case for new DT experiments at JET. Chair of the Integrated Operation Scenarios Topical Group of the ITPA.
<b>Dates</b>	<b>1-October 1999 to 31-December 2008</b>
Occupation or position held	Group Leader of plasma diagnostic and control group - ASDEX-Upgrade, Germany
Name and address of employer	European Commission – Seconded to IPP, Garching, Germany
Type of business or sector	Research and operation management
<b>Tasks</b>	Development of improved H-mode scenarios at ASDEX Upgrade. Involved in international collaboration experiments on advanced scenarios, under auspices of the ITPA. From 2003 to 2008, Group Leader of Diagnostic Group 3 at ASDEX Upgrade (magnetics, MSE, plasma control). As Task Force Leader at JET, prepared experimental campaigns in 2004-2005. Chair of the "Generator Working Group".
<b>Dates</b>	<b>1-November 1993 to 30-September 1999</b>
Occupation or position held	JET team – Operations Division, JET Joint Undertaking, UK
Name and address of employer	European Commission – Stationed at JET Joint Undertaking, Culham, UK
Type of business or sector	Research – JET operations
<b>Tasks</b>	Prepared operations and operating scenarios for JET during experimental campaigns from 1993 to 1999, including the deuterium-tritium experiments in 1997. Expert session leader for JET. Deputy Task force leader for advanced scenarios in JET during the 1999 campaigns.
<b>Dates</b>	<b>1-December 1990 to 31-October 1993</b>
Occupation or position held	JET team – Experimental Division 1, JET Joint Undertaking, UK
Name and address of employer	European Commission – Stationed at JET Joint Undertaking, Culham, UK
Type of business or sector	Research – Diagnostics
<b>Tasks</b>	Continuation of my PhD research: Simulations of transient transport measurements in JET, including coupled differential equations for energy and particle transport. Improved measurement techniques with the microwave reflectometer to obtain routine measurements of the density profiles in JET.
<b>Education</b>	
<b>Dates</b>	<b>December 1987 to November 1990</b>
Title of qualification awarded	Doctor Degree from the Technical University in Eindhoven, the Netherlands Awarded on 22 <sup>nd</sup> March 1991. (4-year PhD project finished in 3 years)
Principal subject	Thesis: "Reflectometry and Transport in Thermonuclear Plasmas in JET"
Name of organisation providing education	Technical University Eindhoven, The Netherlands Work for the thesis performed at the JET Joint Undertaking, Culham, UK
<b>Dates</b>	<b>September 1983 to November 1987</b>
Title of qualification awarded	Physics Degree (Up to 6-year university course finished in 4 years, 3 months)
Principal subjects/occupational skills covered	Physics course at the Technical University Final dissertation of nine months at the FOM Institute for plasma physics "Rijnhuizen", The Netherlands
Name of University	Technical University Eindhoven, The Netherlands

## Management Training

### Specific Courses

Programme management, ESI London, 28-30 July 2010  
Risk management, ESI London, 27-29 April 2009  
Scheduling and cost control, ESI London, 2-5 December 2008  
Project Planning, ESI London, 5-7 November 2007  
Negotiation Techniques, EU Commission Luxembourg, 10-11 July 2006  
Time management for Managers, EU Commission Brussels, 7 July 2006  
Managing people (in German), IPP Garching, 17-19 May 2006  
First Steps in Managing People, EU Commission Brussels, 28-30 November 2005

## Management

### Managerial Tasks (Divided into sub topics & most recent first)

#### Management:

Program Manager VI at DIII-D (Operations Division), San Diego, U.S., since October 2020  
Deputy to JET Exploitation Manager JET, Culham, UK, January 2014 to January 2020  
Project leader of the Data Access Analyses and Archiving (DA3) project, February 2018 to January 2020  
Deputy to Head of the Programme Department at EFDA-JET, January 2009 to December 2013  
Chair of the Generator Working Group at IPP Garching, May 2006 to May 2008  
Task Force Leader at JET, July 2004 to June 2005  
Taskforce leader at ASDEX Upgrade, January 2001 to December 2002  
Deputy Task for leader for advanced scenarios at JET, January 1999 to September 1999  
Experiment leader at ASDEX Upgrade, December 1999 to December 2008  
Expert Session Leader at JET, including deuterium-tritium operation, March 1994 to September 1999

#### Managing people:

Director of the DIII-D Operations Division, San Diego, U.S., since October 2020  
Group Leader for Operations in the JET Exploitation Unit, January 2014 to January 2020  
Group Leader for Operations in the Close Support Unit of EFA-JET, January 2009 to December 2013  
Group Leader of Diagnostics and Control at ASDEX Upgrade, February 2004 to December 2008  
Supervised four PhD students from the Technical University München (3 persons) and from Imperial College (1 person), during the period 2001 – 2013  
Member of the Staff Representation Committee (SRC) from 1997 to 1999, during the period that > 200 EU Commission staff had to leave JET  
Organised Student Introduction weeks of the Physics Department of the TU Eindhoven, September 1986  
Chair of Physics Student Committee "Quasar" at the TU Eindhoven, November 1985 to April 1987

#### Chair of International groups:

Chair of the Steady State Operating Coordinating Committee of the International Energy Agency, January 2013 to January 2018  
Chair of the International Tokamak Physics Activity Topical Group on "Integrated Operating Scenarios", January 2012 to December 2014  
Deputy-chair of the International Tokamak Physics Activity Topical Group on "Integrated Operating Scenarios", January 2009 to December 2011  
Chair of the International Tokamak Physics Activity Topical Group on "Steady State Operation", January 2004 to December 2008

## Advisory Committees

Programme Advisory Committees in the USA

Member of the US Department of Energy Programme Advisory Committee of NSTX-U, Princeton, USA 2014 to 2019

Member of the US Department of Energy Programme Advisory Committee of DIII-D, San Diego, USA 2010 to 2012

Member of fusion Programme Review for the US Department of Energy, Washington, USA June 2011

Member of the US Department of Energy Programme Advisory Board of C-Mod, Cambridge, USA 2007 to 2010

## Expert Member

Member of the Programme Advisory Board for the IAEA-Technical Meeting on Steady State Operation from 2007 to present

Member of the Programme Committee for the international conference on geological repositories of nuclear waste, since March 2020

Member of the Programme Board for the European Physical Society from 2015 to 2016

Expert for the Revision of the ITER (International Tokamak Experimental Reactor) Research Plan 2017

Member of the review panel for Plasma Control System Design Review of ITER in 2012 and 2016

Member of the review panel for the EC Systems in ITER in 2012

## Personal skills

### Language skills

Dutch (mother tongue)

Excellent knowledge of English (worked 22 years in the UK)

Good knowledge of German and Spanish.

### Competences

Good organisational, personal and communication skills.

Excellent time management skills.

Ability to process large amount of information quickly and think “outside the box”.

Chair of several international committees.

Extensive experience at fusion experiments, working in large international teams, organising resources, programme sequence and experiments for international collaborations.

### Hobbies

Swimming.

## Publications

### Journal papers

251 Journal Articles with A.C.C. Sips as named author, including  
45 Journal Articles with A.C.C. Sips as first or second author

### Conferences

168 Conference contributions with A.C.C. Sips as named author, including  
23 Conference contributions with A.C.C. Sips as first or second author

### Others

Thesis, March 1991, Technical University Eindhoven, the Netherlands

### Proposals

The “Operational and Technology case for DT experiments at JET”, February 2013  
The “Scientific case for deuterium-tritium operation in JET”, February 2011