

## Phillip Jacobs



Operations Manager at PV Crystalox  
Renewables & Environment

<http://www.directoryinventor.com/profile/view/2Cw2BCHt>

## Experience

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### Operations Manager

PV Crystalox  
Renewables & Environment  
November 2009 - Present

Reporting directly to the CEO. Responsible for a team of 50 in the machining and manufacture of silicon blocks (Blocking) and Silicon Quality departments in complex silicon block production facility used in the fabrication of high efficiency multi-crystalline wafers for solar cells. The Blocking Department processed ingots to the value of 140m annually. The Silicon Quality Group was responsible for the Quality of 250m of silicon ingots annually. Key Responsibilities and Achievements:- Managed silicon block production increase of 280% in a Departmental expansion and transfer of production to a new facility. Significantly reduced unit costs and improved productivity. Introduced highly visual Departmental Score Sheet .Covering ingots/man/day and pareto of losses. Advocated a Lean approach to manufacturing, coached team in waste reduction, the hidden factory, 5S, route cause analysis and much more. Introduced Silicon Quality staff to Minitab, MS Project using evidence based approach to improving project outcomes. Introduced new quality metric (achieved 20% improvement in 2012) with weekly report on all production. Introduced a new Quality Reporting system and managed the introduction of a highly complex database. Managed personnel carrying out projects worth millions in savings annually to the Group. Conceived and implemented Operational plans for Blocking and Silicon Quality 2010-2012. Liaised with German wafering operation in Erfurt significantly reducing quality complaints.

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### Head of Operations

SiC Processing  
Privately Held; Environmental Services  
July 2008 - May 2009

Reporting directly to the Group Head of Operations. Responsible for managing the Operations Division in 3 highly technical and large-scale manufacturing processing facilities in the renewable energy sector in Norway. Key Responsibilities and Achievements:- Planned and implemented full start-up of Operations Team on 2 new production sites in Norway (Porsgrunn and Glomfjord), supporting silicon wafer production for solar cells. Stabilized and increased production significantly in underperforming Operations sector of Company, using LEAN manufacturing practises and sound operational experience. Implemented Maintenance systems to optimise production capability. Introduced Standard Operating Procedures and Quality Improvement systems, to ensure delivery against key client quality and quantitative targets. Implemented full recruitment and training plans. Implemented KPIs and Performance Management processes across Team. Acted as key client advisor, raising Company profile with major client. Managed 70 Operations personnel (expected to

rise to 200 in coming year). Travelled extensively in role, mostly Germany and Norway.

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## **Manufacturing Director**

### **G24 Innovations**

51-200 employees; Privately Held; Nanotechnology  
July 2006 - October 2008

Reporting to CEO in high-profile \$60m start-up renewable energy business, set up to produce a ground breaking flexible solar cell using an innovative photovoltaic technology printing solar cells onto titanium foil. Key Responsibilities and Achievements:- Assumed primary responsibility for identification and location of new UK manufacturing facility for an American investment group (Renewable Capital), working to a specific deadline brief and budget. Forged close and successful working relationships with key stakeholders (local authorities, political groups US partners etc). Targeted to produce a low carbon manufacturing facility. Implemented BREEAM assessment and feasibility studies looking at ground source heat pumps, biomass (woodchip), wind, solar and landfill gas to power the site using renewable energy. Set up international multimillion pound supply chain, contracts, memorandums of understanding, non-disclosure agreements, with major companies working at all levels (BASF and Johnson Matthey). Helped negotiate with Welsh Development Agency, acquisition of 23 acre, 187,000 sq ft factory. Managed the commercial refit of manufacturing facility with all services including installation of roll-to-roll production machinery, machine shop, chemistry laboratory and solar cell electrical test laboratory, all to rigorous standards. Established Intellectual Property portfolio, strategy and protocol to protect G24's lead sector position. Introduced ISO 9001 Quality system with all Change Management protocols. Worked with international teams in UK and abroad, in Dormagen, Germany and Lowell MA (USA). Appeared on CBS American cable news channel as part of TV documentary on climate change. Recruited Operations team of 40 consisting of Project Managers, Production Manager, Purchasing Manager, Security and Safety Manager, Production operators, Engineers and Scientists.

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## **Operations Manager**

### **Epichem Limited**

Chemicals  
January 2003 - June 2006

Reported to the Global Operations Director, Epichem Group, key worldwide manufacturer of materials for MOCVD, MOVPE, MBE, solar cells, energy-saving coatings for glass, and low energy lighting (high brightness LEDs). Responsibilities and achievements:- Achieved excellent cost reduction results across the full range of products by process mapping, waste reduction, procurement and supply chain overhaul and process modification. Managed shift teams operating 24/7 in complex, performance-critical production environments and top tier COMAH site. Introduced new shift patterns increasing work flexibility and increasing production. Managed Operations Teams, laboratory production and analytical support staff. Worked to ISO 9001 and 14001 standards using quality tools to manage change and performance. Set up Departmental budget systems negotiating size of budget at Company Board level. Overhauled Materials Requirement Planning (MRP) and Enterprise Resource Planning (ERP), IT systems (Macola and Microsoft Navision) and operational practices. Set up Continuous Improvement systems to improve safety, quality, and 10% p.a. cost reduction. Worked closely with R & D to introduce new products. Managed assimilation of new products and personnel from company merger. Introduced effective cost-efficient waste reduction program. Worked with Unions and HR negotiating shift contracts, new working hours and redundancies. Contributed to achievement of several industry awards for Excellence in Production and Operations.

## **Projects and Engineering Department Manager**

Epichem Ltd

Renewables & Environment

January 2000 - January 2003

Managed teams of scientists, mechanical, chemical and electrical engineers, running large-scale projects with a value of up to 3m to increase production, and improve product quality. Responsibilities and achievements:- Achieved recognised framework for excellent Project Management. Introduced systems for improved planning, KPI's, and Performance Management. Introduced HAZOP/HAZAN software and training. Introduced consistent record keeping for critical improvements in Project Management.

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## **Project Manager**

Epichem Ltd

Renewables & Environment

January 1995 - January 2000

Managed highly complex and technical projects on multiple sites. Responsible for negotiating all projects at Board level, operational planning, and successful delivery of Projects including transfer of complete production facility from Holland to UK site following Company acquisition. Projects were, civil, mechanical, engineering, chemical engineering and software in nature Responsibilities and achievements:- Scaled up high-quality technical chemical production from gram to multi-ton production process, to achieve successful Company growth and enhance Company reputation as market leaders in semiconductor industry sector. Designed, fabricated, installed, and commissioned several large-scale manufacturing and production facilities for key clients in the USA and Russia. Spent 3 months in Moscow and 10 weeks in USA delivering business-critical projects to key clients. Designed and installed high quality technical laboratories, to deliver increased production. Worked closely with Research and Development team to achieve optimum Company product growth.

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## **Health and Safety Manager**

Epichem

11-50 employees; Privately Held; Pharmaceuticals

January 1992 - January 1995

HAZOP, FMEA, Safety Investigations, culture change and set up many of the H & S systems in place today.

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## **Project and Operations Specialist**

Epichem Ltd

Renewables & Environment

January 1989 - January 1992

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## **Laboratory Supervisor**

Epichem Ltd

Renewables & Environment

January 1986 - January 1989

## Research/Production Chemist

Epichem Ltd

Renewables & Environment  
January 1985 - January 1986

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## Research Chemist

University of Liverpool

Educational Institution; Higher Education  
January 1982 - November 1984

Working under Contract for MOD for Professor David Cole-Hamilton researching ultra pure materials for semiconductors (MOCVD, MOVPE and MBE).

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## Education

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### 100% Effective Training

Lean 6 sigma black belt  
2009 - 2009

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### University of Warwick

Chemistry  
1979 - 1981

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## Patents (1)

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### Process and apparatus for the isolation of pure, or substantially pure, organometallic compounds (11 worldwide citation)

Rajesh Odedra, Megan Ravetz, Graham Williams, Phillip Reeve Jacobs  
October 16, 2007: 07282119

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[View all \(1\)](#)