Oxford University Begbroke Science Park

Where Industry and Science Meet

Dr Vanessa Cheel
Department of Materials
E. vanessa.cheel@materials.ox.ac.uk
www.begbroke.ox.ac.uk

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Department of Materials
University of Oxford

Begbroke's mission is....

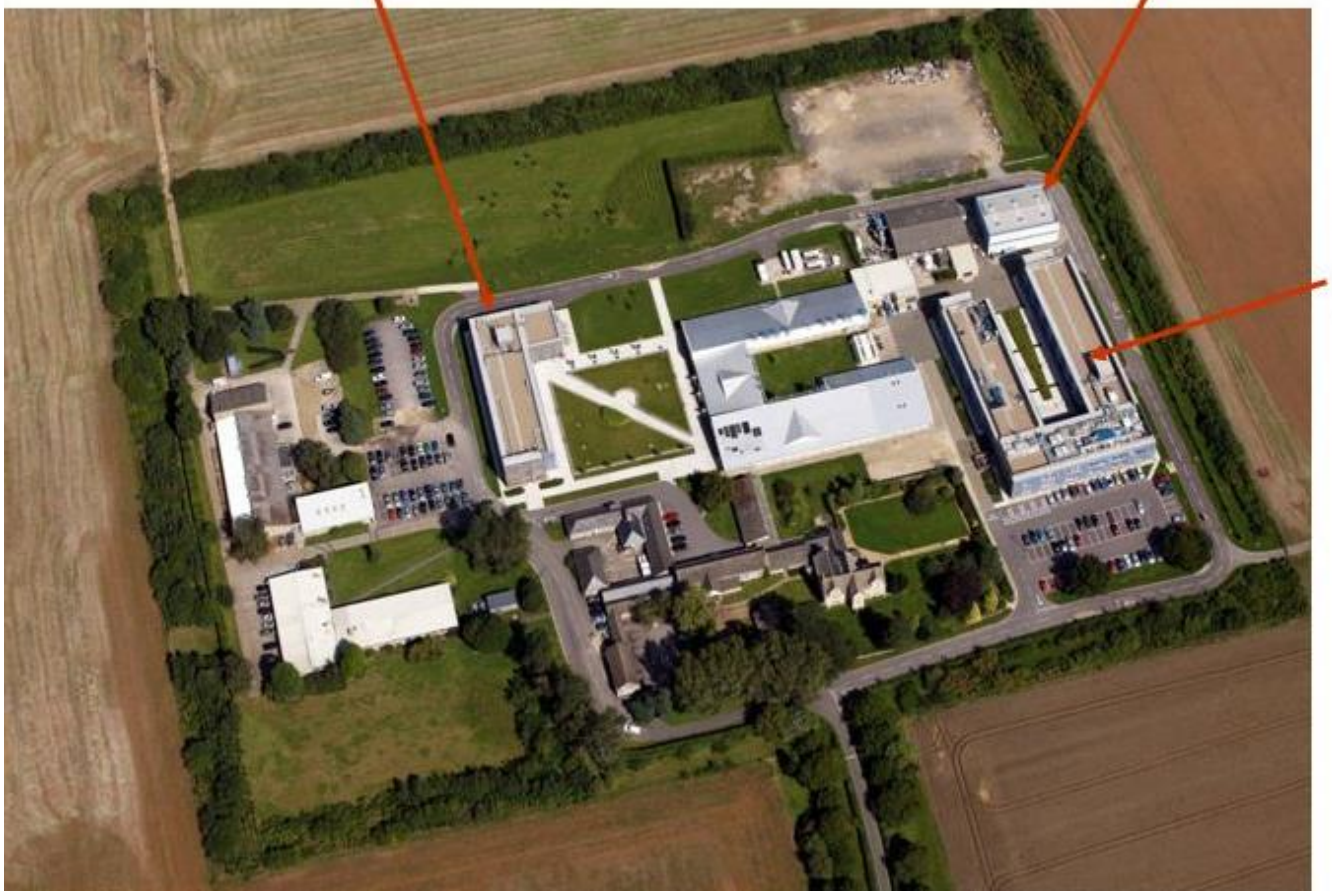
.....to create and sustain an environment in which the interaction of Research, Business and Learning constantly produce new synergies – and to translate these synergies into innovations to meet today's industrial challenges.

The Department of Materials started it

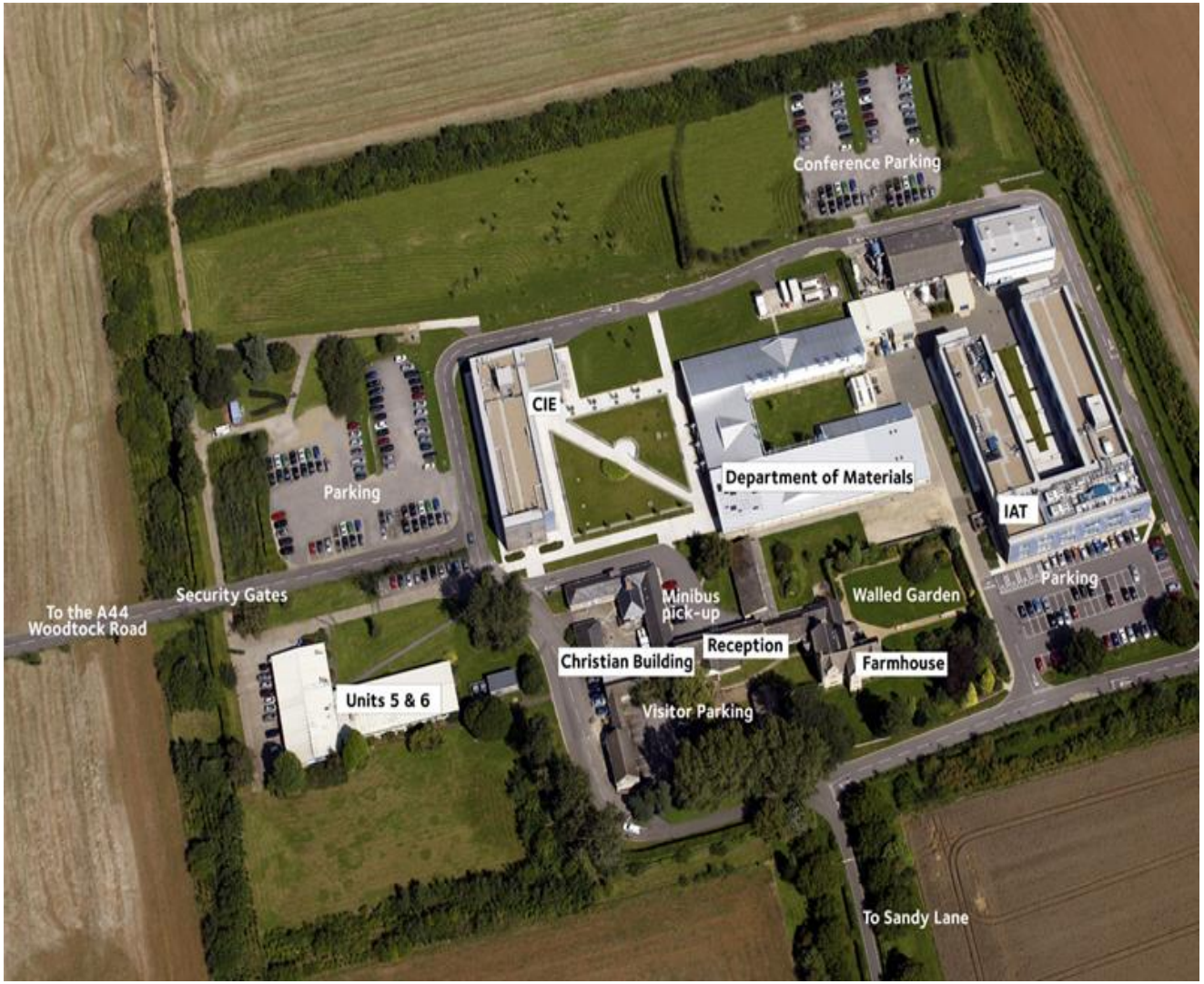
With the purchase of
80 hectares in 1998
including 7500m^2
lab/office space

6 miles north of Oxford city centre and
the main concentration of the University & Colleges

Begbroke Science Park 2008



Begbroke Science Park 2015



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The Hirsch building 1998

The Christian building

Centre for Innovation and Enterprise

The Institute of Advanced Technology

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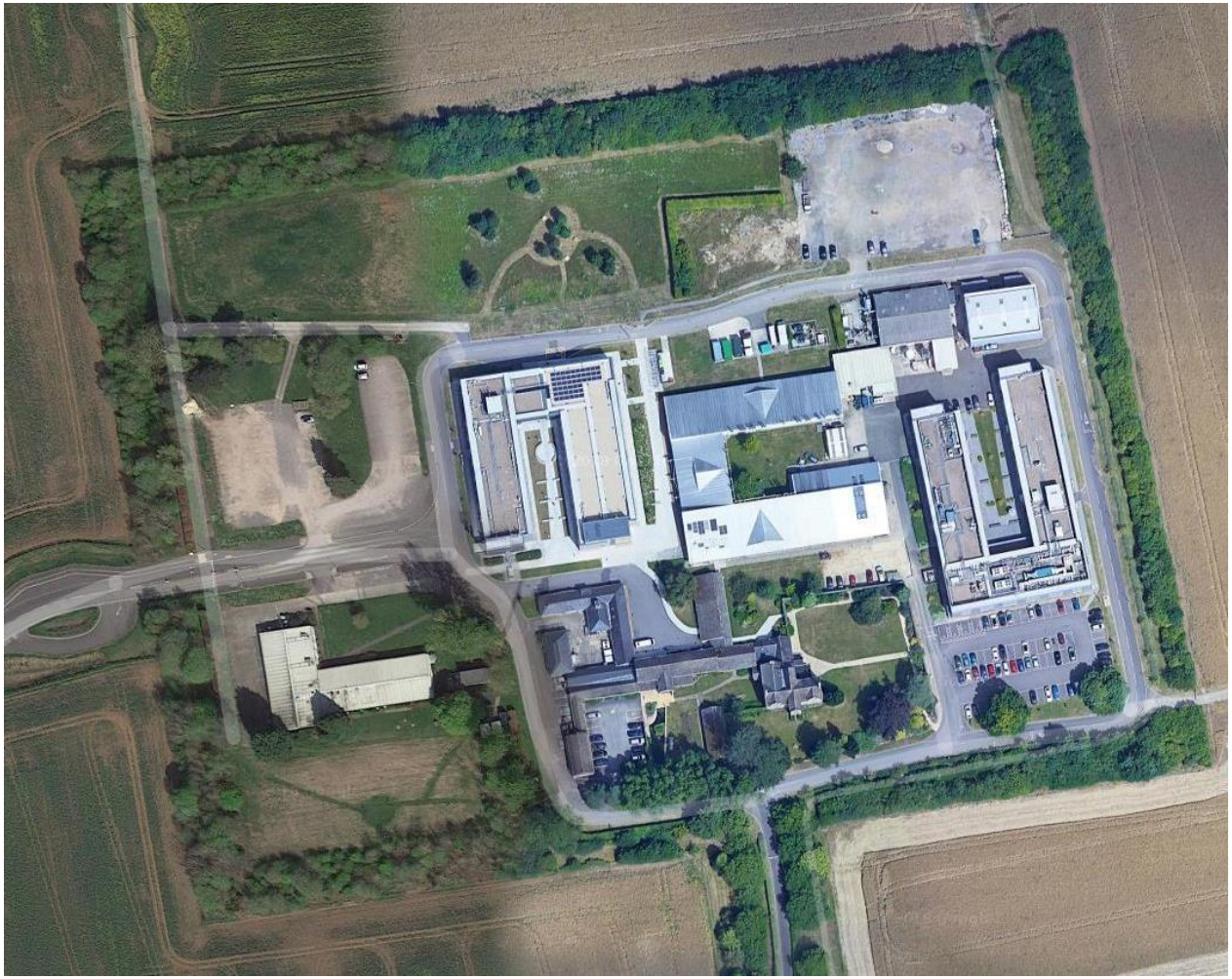
Begbroke Science Park 2018



The Begbroke Innovation Accelerator

Begbroke Science Park

The Centre For Innovation & Enterprise


Who's Here


Equipment And Facilities


Conferences And Meeting Rooms


Park Life


Outreach

Website Search

Browse Events

No events

Browse News and Press

Chirolabs helps in raising awareness of the potential carcinogen danger of artificial grass pitches
Posted on: Aug 22nd, 2016

Practical Nanoscience Day For Teachers - Excellent hands-on training
Posted on: Jul 13th, 2016

Pupils Explore Nanotechnology at Begbroke Science Park
Posted on: Jun 28th, 2016

Professor Nicole Grobert appointed to European Commission's Group of Chief Scientific Advisors
Posted on: May 10th, 2016

http://www.begbroke.ox.ac.uk

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Companies at Begbroke

Adaptix Imaging
Animal Dynamics Limited
Bodle Technologies Bridgeway Aerial Ltd
CCM Research
Chiralabs
CrystalMaker Software Ltd
Energenics Europe Ltd
Faradion Ltd
Integra IP Ltd
IntraBio
iotaSciences
Magneti Marelli
Nekton
NIO NextEV (UK) Ltd
N-Tec
Omass
Opsydia Ltd
Oxford Advanced Surfaces Ltd
Oxford Analytics
Oxford Gene Technology (OGT)
OxMet Technologies
Oxford Molecular Biosensors Ltd
Oxford Sustainble Fuels
Particle Therapeutics Ltd
PJH Partnership Ltd
Population Bio UK.
Prosensa
Thermofluidics
Wheelright Ltd

Research Groups at Begbroke

- Advanced Research Computing (ARC)
- Begbroke Cleanroom
- Centre for Sustainable Water Engineering
- Energy and Power Group
- Electron Microscopy Facility
- Environmental Biotechnology
- Impact Engineering Laboratory
- Nanoparticles for Cancer Therapy
- Advanced Materials Processing
- Materials for Fusion and Fission Power
- Nanomaterials by Design
- NanoSIMS Group
- Oxford Electron Image Analysis
- Oxford Materials Characterisation Service
- Polymers Group
- Processing and Manufacturing
- Solar Energy Materials Initiative

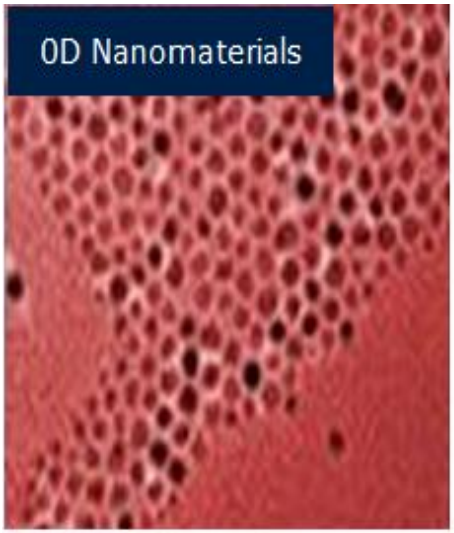
Clean room – 150 m^2, ISO class 6

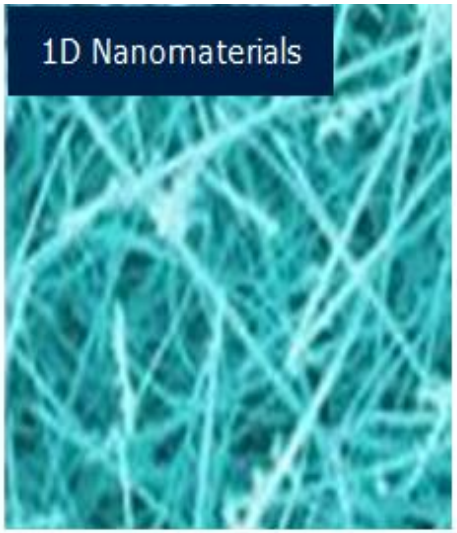
- Full process capability
  - 1 mm CMOS technology
- Specialist services
  - Metallisation
  - Dielectrics
  - Thermal treatments
  - MEMS
    - RIE
    - Wet chemical
  - Reverse engineering

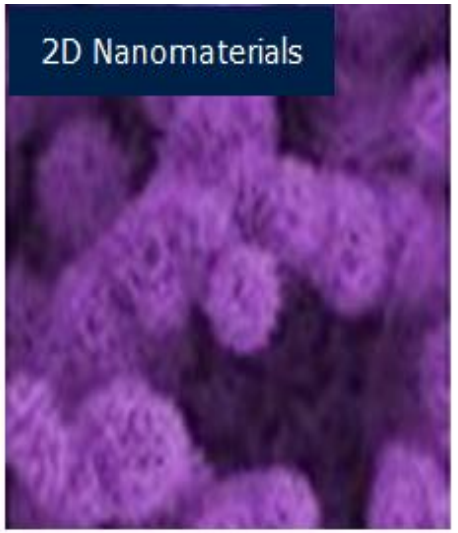
Metal alloy development

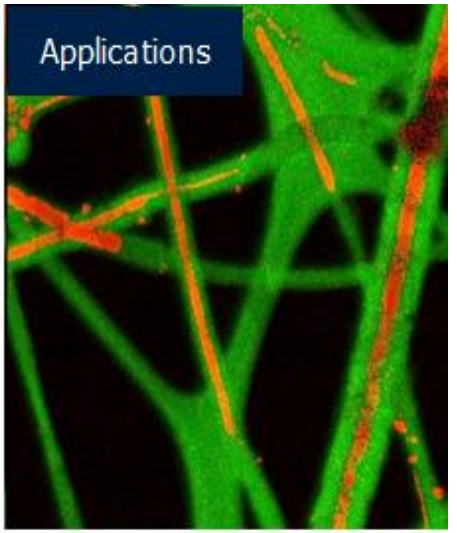
- Nickel super alloys
  - Production of prototype aero-turbine components
- Aluminium alloys (Al/Li, etc)
- Controlled Expansion alloys (Si/Al)

Nanomaterials by design



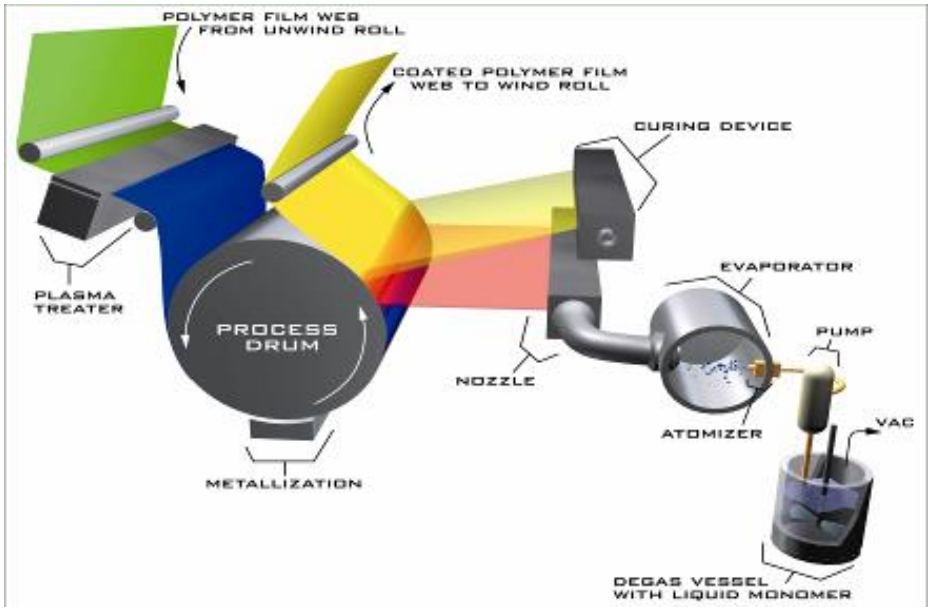






Web coater

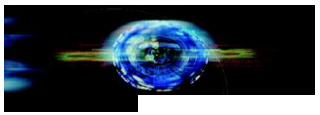
- Winding speed up to 300m/min
- Vacuum plasma treater
- Dual magnetron sputtering system
- Resistive boat evaporator
- Liquid monomer deposition and in situ e-beam cure



Oxford Materials Characterisation Service

Offering the industry and the research community an open door to all aspects of ***materials characterisation***

https://www.research-facilities.ox.ac.uk/



Innovate UK

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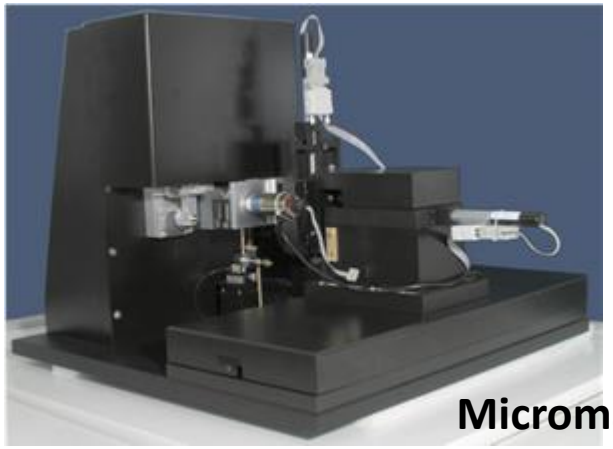
Wide range of state-of-the-art equipment

- Micromaterials Nanotest Platform
- Omniscan MicroXAM 5000B 3d ADE Phase shift interference contrast optical profiler
- μSurf Nanofocus – confocal optical profiler
- Malvern Mastersizer 2000 with dispersion unit
- Malvern Zetasizer Nano ZS
- CPS Centrifugal sedimentation particle size analyser
- Nanosight optical nano-particle analyser
- Varian Excalibur imaging FTIR microscope
- Varian Cary 5000 UV-vis-NIR spectrometer
- JY Horiba Labram Aramis imaging confocal Raman microscope
- Micromeritics Gemini V BET surface area analyser
- Vacuum microbalance
- Microcalorimetry
- Perkin Elmer Hyper DSC (differential scanning calorimeter)
- Perkin Elmer Pyris TGA
- Oxford Instruments INCA Energy and INCA Wave and Channel 5 EBSD on a JEOL 6480 Low Vacuum large stage SEM platform
- X-ray fluorescence spectroscopy
- X-ray diffraction (Bruker AXS D5000)
- X-ray photoelectron spectroscopy (VG CLAM)
- XPEEM Imaging XPS
- Secondary ion mass spectrometry (VG Quad)
- Veeco AutoProbe Atomic Force Microscope
- Veeco DekTak 6M stylus profiler
- JEOL 4200 controlled atmosphere scanning probe microscope (STM and AFM)

Oxford Materials Characterisation Service

Surface Area Gemini V Series Analyser

JY Horiba LabRAM ARAMIS imaging confocal Raman microscope



Micromaterials NanoTest Platform

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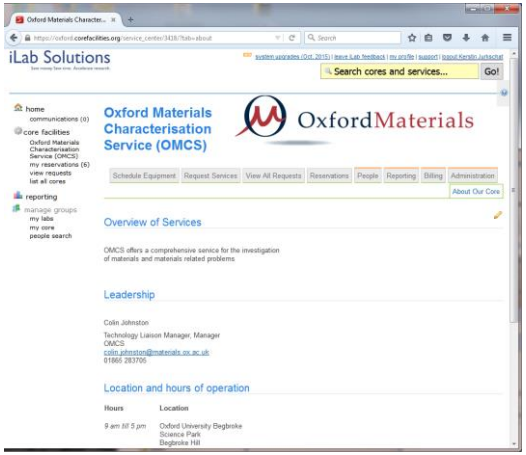
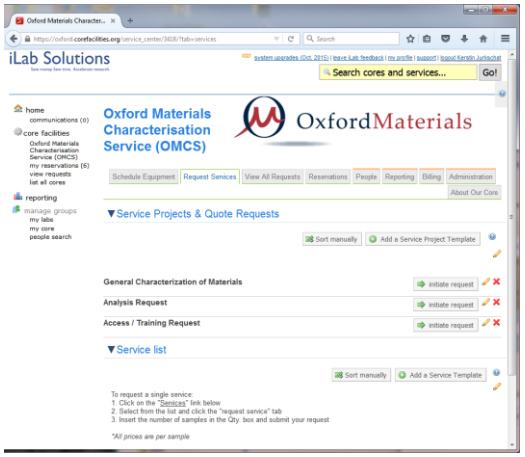
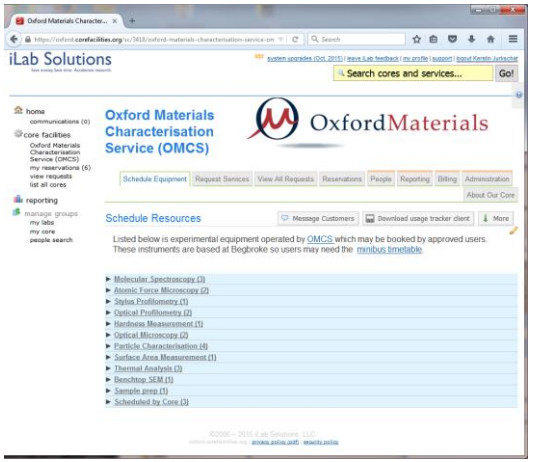
iLab Solutions







- Register for training and access
- Get trained
- Book and use equipment

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How to get here

Minibus Timetable.

BUS STOP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Begbroke depart	07.10	07.25	07.40	07.55	08.20	08.40	09.00	09.20	09.35	09.50	10.10	10.25	10.50	11.05	11.35	11.45
Parks Road opposite Dept. of Materials	07.20	07.45	08.10	08.25	08.40	09.00	09.15	09.35	09.50	10.05	10.25	10.40	11.05	11.20	11.50	12.05
Broad Street Oxford Town Centre Whitehorse Pub	07.30	07.55	08.15	08.30	08.45	09.05	09.20	09.40	09.55	10.10	10.30	10.45	11.10	11.25	11.55	12.10
Parks Road Dept. of Materials	07.31	07.56	08.16	08.31	08.46	09.06	09.21	09.41	09.56	10.11	10.31	10.46	11.11	11.26	11.56	12.11
*BBC Oxford, Banbury Road	07.35	08.00	08.20	08.35	08.50	09.10	09.25	09.45	10.00	10.15	10.35	10.50	11.15	11.30	12.00	12.15
Begbroke Arrive	07.55	08.20	08.40	08.55	09.10	09.25	09.45	10.00	10.15	10.30	10.50	11.05	11.30	11.45	12.10	12.30

BUS STOP	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Begbroke Depart	12.10	12.55	13.30	14.15	14.55	15.05	15.40	15.55	16.30	16.45	17.10	17.20	17.40	18.10	18.30	19.10
Parks Road opposite Dept.of Materials	12.30	13.15	13.50	XXXX	XXXX	XXXX	XXXX	16.15	16.50	17.05		17.40	18.00	18.30		XXXX
Broad Street Oxford Town Centre Whitehorse Pub	12.35	13.20	13.55	XXXX	XXXX	XXXX	XXXX	16.20	16.55	17.10		17.45	18.05	18.35		XXXX
Parks Road Dept. of Materials	12.36	13.21	13.56	14.35	15.15	15.25	16.05	16.21	16.56	17.16		17.46	18.06	18.36		19.30
*BBC Oxford, Banbury Road	12.40	13.25	14.00	14.40	15.20	15.30	16.10	16.25	17.00	17.20		17.50	18.10	18.40		XXXX
Begbroke arrive	12.55	13.45	14.15	14.55	15.40	15.50	16.30	16.45	17.20	17.40		18.10	18.30	19.00		19.40

*Request stop only. Unless requested the minibus will not stop here.
NO FOOD OR DRINK TO BE CONSUMED ON THESE MINIBUSES.
THE CARRIAGE OF GOODS IS STRICTLY FORBIDDEN.
RUNS 27 AND 31 - 8 SEATER TAXI TO BROAD STREET ONLY

Now to see for yourselves