

ETN's 15TH ANNUAL GENERAL MEETING & WORKSHOP

AGENDA

27-28 March 2019

Pau, France

WEDNESDAY 27 MARCH 2019: Annual General Meeting

Morning	ETN Board and Project Board meetings
9:00–11:35	Site visits: Total's Remote Assistance, Intervention and Diagnostics (RAID) room (optional)
11:00–13:15	Registration at Total's conference centre ("Auditorium" building)
12:00–13:00	Welcome lunch ("Auditorium" building)
13:15–15:00	<p>Opening and President's speech, Bernard Quoix, ETN President/TOTAL</p> <p>Approval of the previous AGM minutes</p> <p>Annual report of the activities and achievements, Christer Björkqvist, Managing Director, ETN</p> <ul style="list-style-type: none"> • Energy & climate policy and market trends • ETN Working Groups, projects and other activities • Upcoming meetings and supported external events <p>Strategy and way forward, Gary Lock, ETN Board member/Frazer-Nash Consultancy</p> <p>Financial report, Andy Williams, ETN Treasurer/Chromalloy</p> <p>Adoption of accounts</p> <p>IGTC-20 Conference Advisory Board</p>
15:00–15:30	Coffee break
15:30–17:30	<p>Report from the ETN Project Board, Peter Jansohn, Chair of ETN Project Board/PSI</p> <ul style="list-style-type: none"> • R&D Recommendation Report and future opportunities <p>Safety moment: hexavalent chromium, Cath Goy, ETN Vice President/Uniper</p> <p>The role of hydrogen in the energy transition – panel discussion Chaired by Cath Goy, Team Leader GT combustion, Uniper</p> <ul style="list-style-type: none"> • Equinor – CCS and hydrogen <i>Geir Johan Rørtveit, Equinor</i> • Hydrogen deployment in the power generation energy mix <i>Geert Laagland, Head of Engineering, Vattenfall</i> • Hydrogen Fired Gas Turbine for the Realization of a Low Carbon Society <i>Satoshi Tanimura, General Manager Gas Turbine Technology & Products, MHPS</i> • Electrolysis systems for green fuel <i>Thomas Thiemann, Lead Energy Transition Technologies, Siemens</i> <p>Closing remarks, Christer Björkqvist, Managing Director, ETN</p>
17:30	Bus service will be organised between the venue and hotels
19:00–23.00	Dinner at Le Jeu de Paume, Hotel Parc Beaumont

THURSDAY 28 MARCH 2019: Workshop

Bus service between the hotels and Total's conference centre:
Departure from **Parc Beaumont hotel at 7:45**
Stop at **Villa Navarre hotel at 7:50**

08:30-10:30 **ADDITIVE MANUFACTURING IN THE GAS TURBINE SUPPLY CHAIN**
PANEL DISCUSSION **ROOM: PLENARY**

Chaired by John Oakey, Professor of Energy Technology, Cranfield University

Development and Industrialization of Additively Manufactured Gas Turbine Components

Paolo Del Turco, Gas Turbines Engineering Technology Leader, BHGE

Ensuring and validating process stability for qualification of large industrial selective laser melting machines

Steve Nardone, Project Manager Metal Additive Manufacturing, ENGIE

EOS technology driving the way towards serial production in turbomachinery

Lukas Fuchs, Business Development Manager Turbomachinery, EOS

Höganäs: Tailored new powder alloys to advance existing applications

Michael Hinz, Global Sales Manager Customization Technologies, Höganäs

10:30-11:00 Coffee Break

11:00-12:30 Parallel breakout sessions (details on the right)

12:30-13:30 Lunch

13:30-15:00 Parallel breakout sessions (details on the right)

15:00-16:00 **Report from Technical Committee discussions, Project Board**
Closing remarks, Bernard Quoix, ETN President/TOTAL

TECHNICAL COMMITTEE 1: NEXT GENERATION POWER CYCLES: SUPERCRITICAL CO₂ FOR ENERGY INTENSIVE INDUSTRY

Chaired by Marco Ruggiero, External Funding & Research Collaborations, BHGE

Room: EA089

Horizon 2020 call: Industrial (Waste) Heat-to-Power conversion – *Ugo Simeoni, Research & Innovation Manager, ETN*

Demonstration of Supercritical CO₂ Cycles Technology for Waste Heat Recovery Applications – *Giuseppe Messina, Project Process Engineer, ENEA*

Supercritical from heat to power: CARBOSOLA - the German R&D initiative on sCO₂ as an alternative working fluid for waste heat recovery – *Michael Wechsung, Principal Expert, Siemens*

Turbomachinery challenges for supercritical CO₂ applications – *Emanuele Rizzo, Senior Engineer Rotating Machinery, BHGE*

TECHNICAL COMMITTEE 2: GAS TURBINES OPERATIONAL AND FUEL FLEXIBILITY

Room: PLENARY

Chaired by Peter Kutne, Head of Department Gas Turbine, DLR

PUMP HEAT - Performance Untapped Modulation for Power and Heat via Energy Accumulation Technologies
Alessandra Cuneo, Project Manager, RINA-C

Horizon 2020 call: Integrated solutions for flexible operation of fossil fuel power plants through power-to-X-to-power and/or energy storage – *Alessandra Cuneo, Project Manager, RINA-C*

Creating a CCU CO₂ hub in Greece – From Power-to-X To Power-to-X-to-Power – *Kostis Atsonios, Research Associate, CERTH*

Hydrogen Working Group

TECHNICAL COMMITTEE 3: ADDITIVE MANUFACTURING

Room: BIGORRE & OSSAU

Chaired by John Oakey, Professor of Energy Technology, Cranfield University

AM-Motion benefits and trends of AM in Europe – *Paula Queipo, External Relations Director, Prodimtec*

ETN AM research roadmap – *Ferenc Pankotai, Manager Combustion Engineering and AM, Solar Turbines*

3D Printing a Pump Impeller – Specification, Testing and Acceptance Criteria – *Jan de Roos, Senior Rotating Equipment Engineer, Shell*

ETN Additive Manufacturing Working Group – Benchmarking Initiative – *Steve Nardone, Project Manager Metal Additive Manufacturing, ENGIE*

ETN AM Equipment Database – *Valentin Moens, Technical Project Officer, ETN*

TECHNICAL COMMITTEE 4&5: GAS TURBINE COMPONENT LIFE ASSESSMENT

Room: EA011

Chaired by Chris Dagnall, General Manager, DNV-GL Energy

Expectations of an operator on gas turbine components life assessment – *Jean-Louis Meyer, GT Senior Engineer, EDF*

Accessing Remaining Life of Critical Gas Turbine Parts – *Stefan Reh, Head of Test and Simulation for Gas Turbines Department, DLR*

Methodology to assess the remaining life of gas turbines components – *Ambra Giovannelli, Dr. Fluid Machinery, University of Roma TRE*

Predictive tools for gas turbine maintenance decision support – *Valentina Zaccaria, Assistant Professor in Energy Engineering, MDH*

Maintenance interval extension for gas turbines – methodology and cases – *Sigrid Gijbels, Thermal Generation Lab Manager, ENGIE*

Sponsor



Accommodation

[Hotel Parc Beaumont](#)

1 Avenue Edouard VII, 64000 Pau, France

[Hotel Villa Navarre](#)

59 Avenue Trespoey, 64000 Pau, France

Venue

[Total's conference centre](#)

Avenue Larribau, 64018 Pau Cedex, France

AGM Dinner

[Le Jeu de Paume](#)

Hotel Parc Beaumont

1 Avenue Edouard VII, 64000 Pau, France

Contacts

Christer Björkqvist

Managing Director
+32 (0)495 75 34 27

Noora Kilpinen

Communications Officer
+32 (0)497 256 520

Valentin Moëns

Technical Project Officer
+32 (0)479 735 444

Ugo Simeoni

Research and Innovation
Manager
+32 (0)471 336 769

Ilona Kolb **Financial and**

Administrative Officer
+32 (0)483 414 860

Taxi numbers

Allo Taxis Palois, Pau: +33 (0)5 59 02 22 22

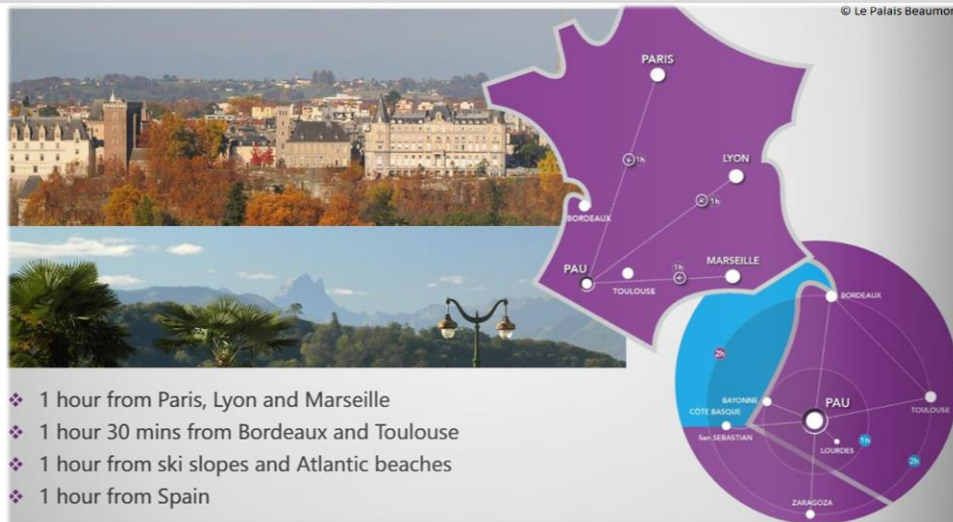
Taxi Christophe Falque, Pau: +33 (0)6 01 63 78 85
(Cash only, language: French)

Connections hotels – meeting venue

27 March (afternoon): departure from Total's site at 17:30, with stops at Villa Navarre and Parc Beaumont hotels

28 March (morning): departure from Parc Beaumont hotel at 7:45, with a quick stop at Villa Navarre hotel at 7:50

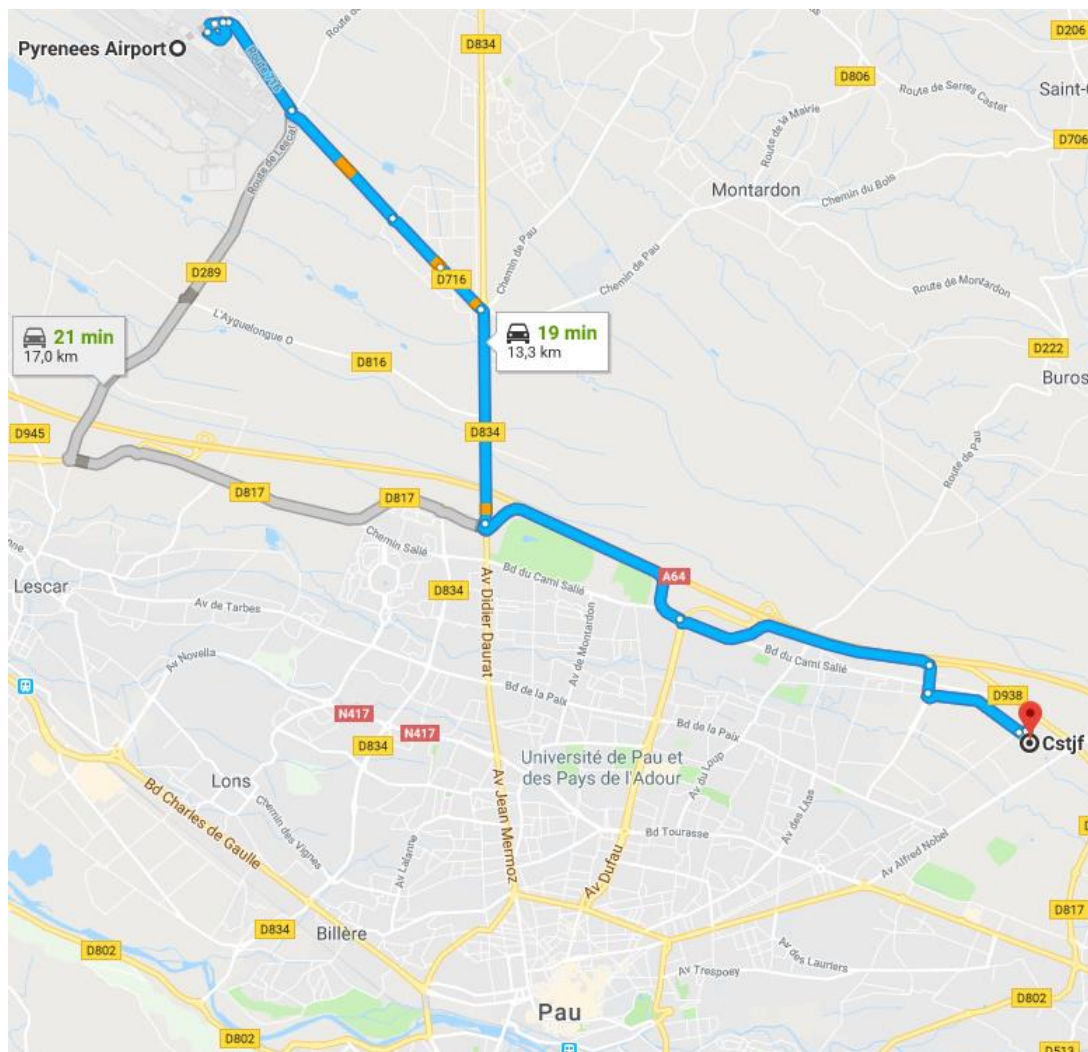
Directions



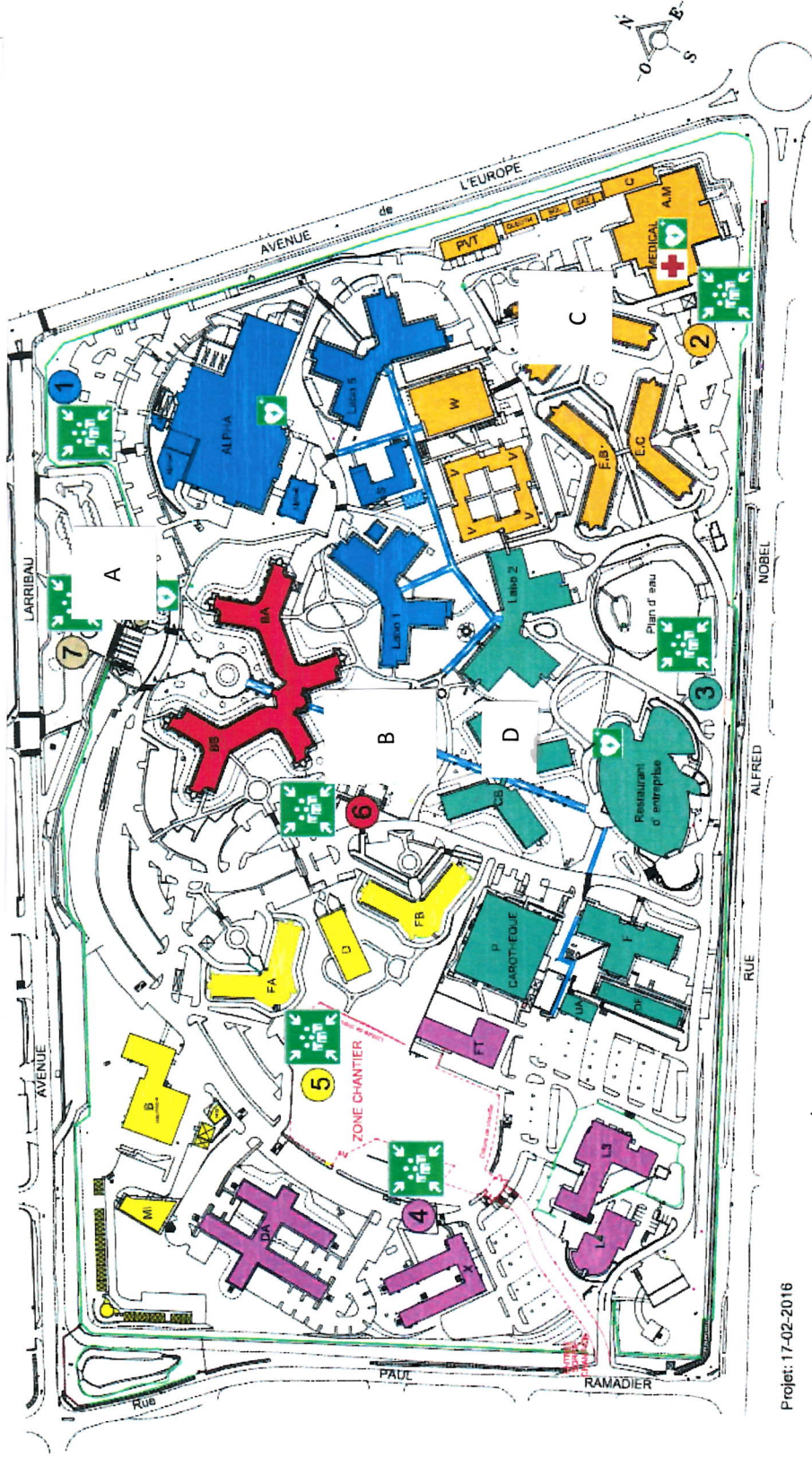
Pau Pyrénées Airport is located 13 km from Pau city centre and has daily flights from Paris (CDG and Orly), Lyon, Nantes and Marseille. Other airports nearby are Biarritz, Bordeaux and Toulouse. Pau can also be reached by train from several cities around France.

Pau city centre can be reached from the airport by taxi (average fare 30 euros) or shuttle bus, which operates between 7:00 and 19:00 (journey time about 30 minutes). Tickets can be purchased on the bus.

[Total's conference centre](#) (Cstjf) is located 5km away from Parc Beaumont hotel and 4km from Villa Navarre hotel. It can be reached from the airport by taxi.



- A: Entrance gate
- B: Conference centre (Auditorium): Plenary room and breakout rooms Bigorre & Ossau (ground floor)
- C: Building EA: breakout rooms EA089 and EA011 (ground floor)
- D: Building CA: RAID room (first floor)



Projet: 17-02-2016