

10th High p_T workshop at LHC at Subatech in Nantes in 2014

Magali Estienne

LPSC, Grenoble - September 28th 2013

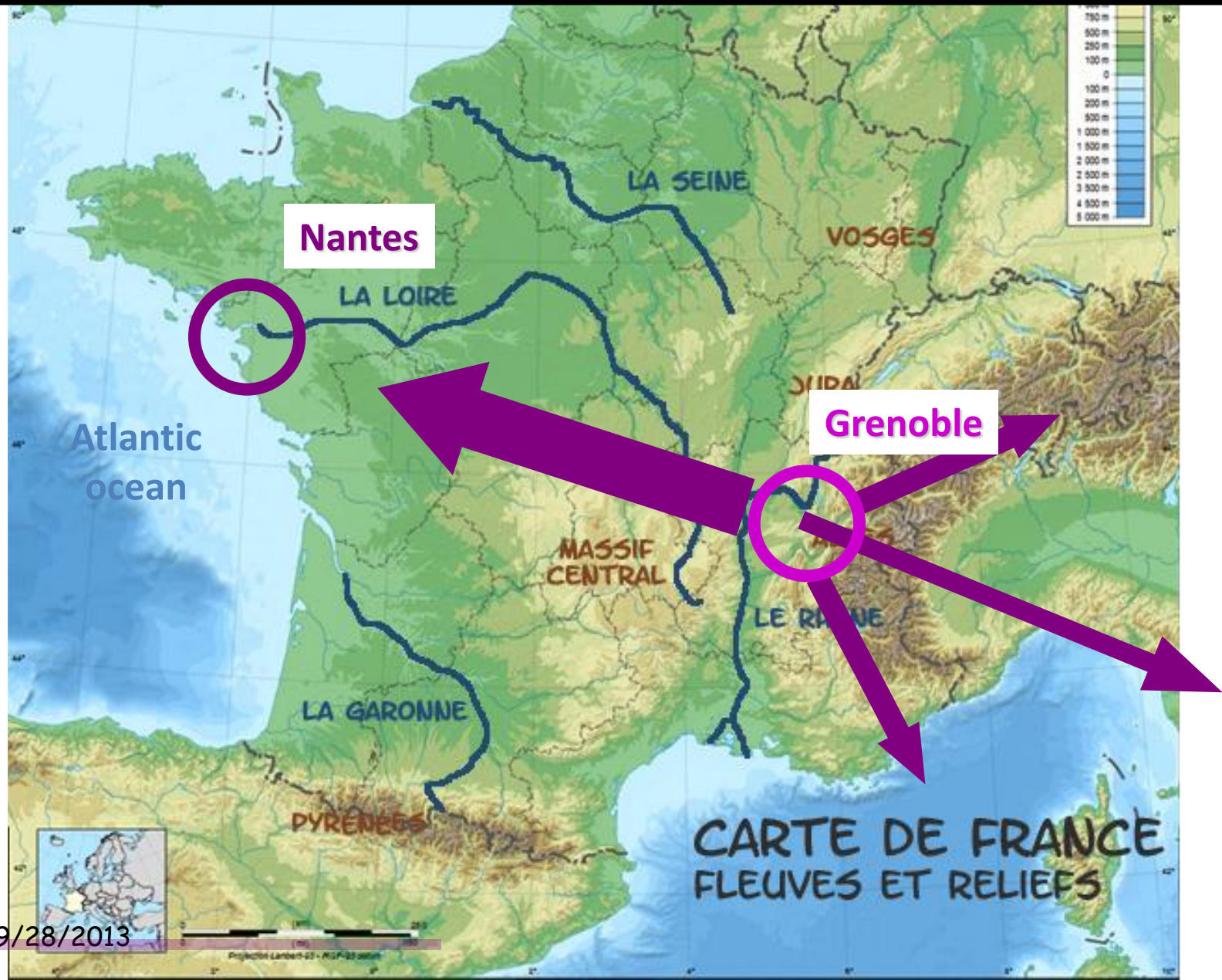
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l'esprit grand ouvert



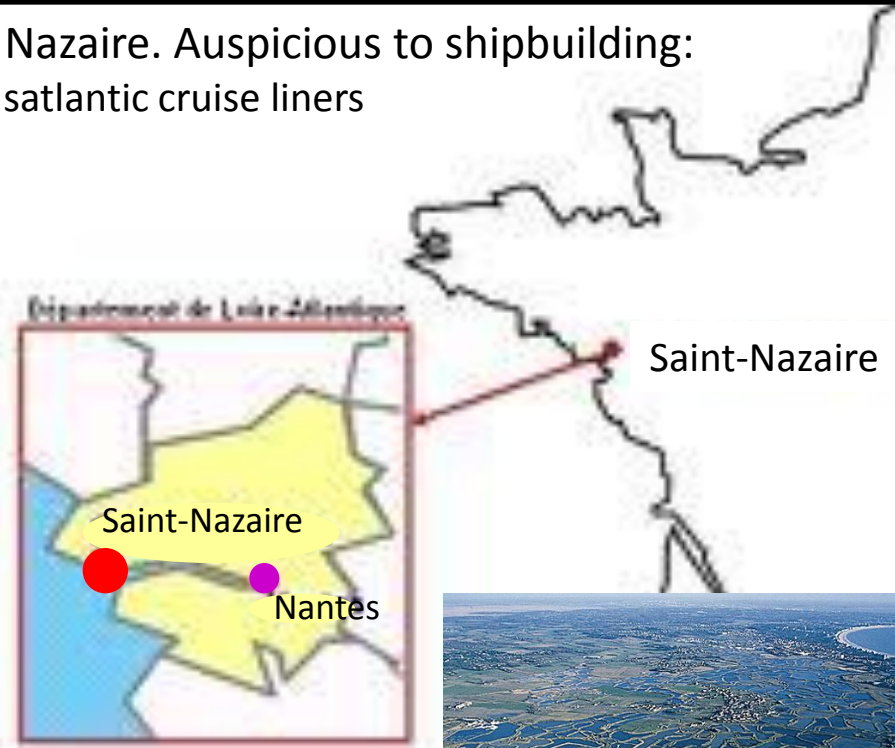
No suppression from the mountain to the sea side



Geographical situation

- River mouth of « la Loire » from Nantes to St Nazaire. Auspicious to shipbuilding:

- ☐ « Chantiers de l'Atlantique », St Nazaire: transatlantic cruise liners
- ☐ Indret DCNS, Nantes: military construction

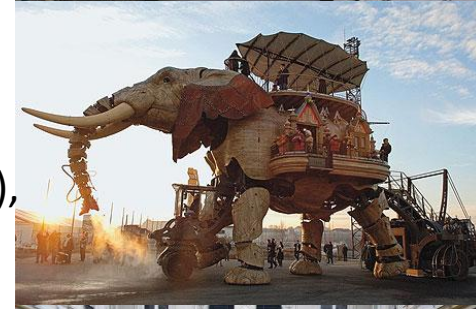


- « Pays de la Loire »: a region about water
 - ☐ Sea side surroundings: Atlantic ocean, La Baule beach, Pornic fishing port, etc.
 - ☐ Medieval city, Guérande and its salt pans
 - ☐ Partly built on top of 2 rivers: the Loire and its tributary (right bank), the Erdre
- Nantes well served by plane, fast train (TGV) and a road network which acts as a relay between Paris and its region, Brittany, England and Spain
- Cheviré bridge to link the north and south areas of Nantes since 1991



Nantes city

- Nantes in the department of the Loire Atlantique, Pays de la Loire region
- Nantes and surrounding areas = 590000 inhabitants, the country's sixth largest city
- Ancient capital of Brittany with its castle « château des ducs de Bretagne »
- City full of history: castle, cathedral, memorial of abolition of slavery, le cours des 50 otages, tour de Bretagne
- A huge industrial past: biscuit (LU), sugar (Béghin-Say) factories, famous cranes
- 70% of the territory dedicated to agriculture
 - ❑ **North**: salt pans, Brières Regional Park with heather and its thatch roofs
 - ❑ **South**: fruit-grower, market gardener and vineyard, growing lily of the valley
- Cultural city: jazz and classical festivals, art in the city, Les machines de l'île
- The European green capital 2013: a lot of gardens, politics against cars in the town center to the public transportation profile (tram, bus, bicycles, etc.), conferences and festivals, etc.



Dishes and sweets



- Sea-food: marine fishes (pikeperch, daurade, bass, etc.) with white butter sauce, molluscs, shellfish, etc.
- Breton galettes (buckwheat)
- Pudding of Nantes, biscuits/cakes made with salted butter (kouign amann, Sablé Breton, « petits beurrés », etc.)
- « Berlingots », « rigolettes », salted butter caramels
- White wine (Muscadet, gros plant) and wine from the Loire valley

Subatech laboratory



Atlanpole site

- Subatech located inside Mines Nantes (engineer school)
- Laboratory funded by 3 institutions: CNRS/IN2P3, Nantes university and Mines Nantes

- Number of researchers: 52
- Number of administrative and engineers: 56p and 14np
- Number of PhD students and postdocs: 32+15

• Key words: subatomic physics, nuclear chemistry, experiment and theory, applications and education

• Research fields: High Energy Universe, Nuclear – Energy - Environment – Materials, Nuclear and health

- ☐ Radiochemistry
- ☐ Physics: experimental HI physics, astro, theory (high and low energies), reactor physics, neutrino , dark matter search, medical physics, cyclotron, instrumentation & metrology.

The HI physics at Subatech

- PLASMA group (20 persons) now mainly involved in ALICE physics at LHC divided in 2 physics sub-groups + a component in the STAR experiment
 - alicemuon: muon arm, MFT and associated physics
 - alicehp2: high p_T and photon physics and EMCal/DCal (mechanics)
 - STAR: open charm physics and SSD
- 2 THEORY groups (18 persons) mainly working on Heavy Ion physics in high and low energies



DCal installation status

- Done so far:

- ☐ Dummy assembly of the DCal-PHOS support structure (SS):
 - ✓ 2x12m long beams + 6 ribs
- ☐ Loading test of the SS: successfully loaded at 1.35 x nominal load ($1.35 \times 62\text{t} = 84\text{t}$)
- ☐ PHOS removed from L3
- ☐ Dummy insertion test of DCal and PHOS with insertion tooling
- ☐ Insertion of rails in L3
- ☐ Insertion of DCal-PHOS support structure in L3 + rail alignment

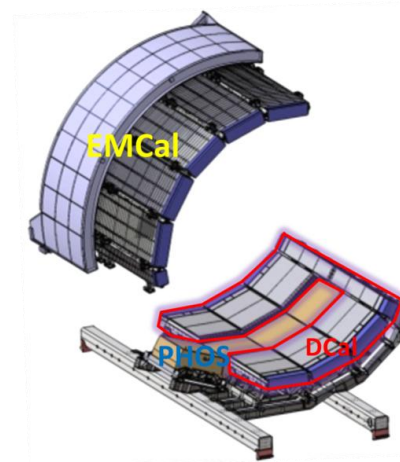


- October 2013

- ☐ Insertion of 3 DCal C side super modules + 2 DCal extension.

- End of 2014

- ☐ Insertion of 4 PHOS modules with DCal insertion tooling.
- ☐ Insertion of 3 A side DCal super modules.



Where and when?

Thank you very much for your participation to this 9th
HPT@LHC workshop!

You are welcome to Subatech to attend the 10th
international High p_T workshop at LHC in 2014

September 2014

