FROM PUBLIC LABORATORIES TO WORLD MARKET: CIT-ALCATEL AND COLLABORATIVE INNOVATION IN FRENCH TELECOMMUNICATIONS (1960s-1980s)

The French Contribution in a World of Innovation
Oxford – 27th January 2010
Preliminary remarks

In the mid-1950s, the French Telecoms:
- are dependent on foreign technologies
- suffer from a lack of investment
- have been neglected during the post-WWII reconstruction
1. Create a cocoon for joint researches

- **CNET**: Centre national d’études des télécommunications (National Center for Telecommunications Studies). 1944
- Pierre Marzin decided to create a research center in Lannion (Brittany). Opened in 1963.
- Cooperation with industry is introduced for studies.
1963: the CNET
1965: CIT-Alcatel
1966: the others manufacturers
Assets of Lannion:
- a community of technicians
- high-technology as a daily practice
- the distance from Paris

Memory with magnetostrictive delay line
2. Operator and manufacturer, together in the network

Prototype
Lannionais
d’Autocommutateur
Temporel
à Organisation
Numérique

(Electronic switching system)
1970: the first electronic switching system
The test of the network: hardware and software
3. Brittany, France, the World: the long march towards global markets

E10
Poitiers, 1973
1972: the first all-digital network
E-10 system in France in 1975
The difficult conquest of markets

- Eastern Europe: Poland, Romania, URSS
- Mexico, India
- Malta, Ireland
- Former colonies: Tunisia, Morocco
conclusion

The main characteristics of this innovation process:
- launched after the others... but not too late
- an alliance between government and business
- put some distance from Paris
THANK YOU

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