

TEN-34

Progress on High Speed Networking in Europe

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What is TEN-34?

- **Consortium of National research networks**
- **Fourth Framework Project funded (in part) by the EC**

Objectives

- **IP service at 34 Mbit/s as soon as possible**
- **Validation of new ATM-based services**
- **Migration of validated services to operational status**

Obstacles - PNOs

- **No commercial services available**
- **Limited (and reluctant) supply of 34 Mbit/s**
- **Commercial circuit prices high (when available)**
- **ATM prices equally high**
- **Regulation/Liberalisation**
 - **timetable**
 - **paradox**
 - **ONP**

Obstacles - Funding

- **Administrative (rather than amount)**
- **No approval before budget specified**

Obstacles - Complexity

- **12 Western European NRNs (+ 3 from CEEC)**
 - PNOs
 - Unisource
 - European Commission
- **Different policies, plans, approaches**
- **Need for consensus between partners**

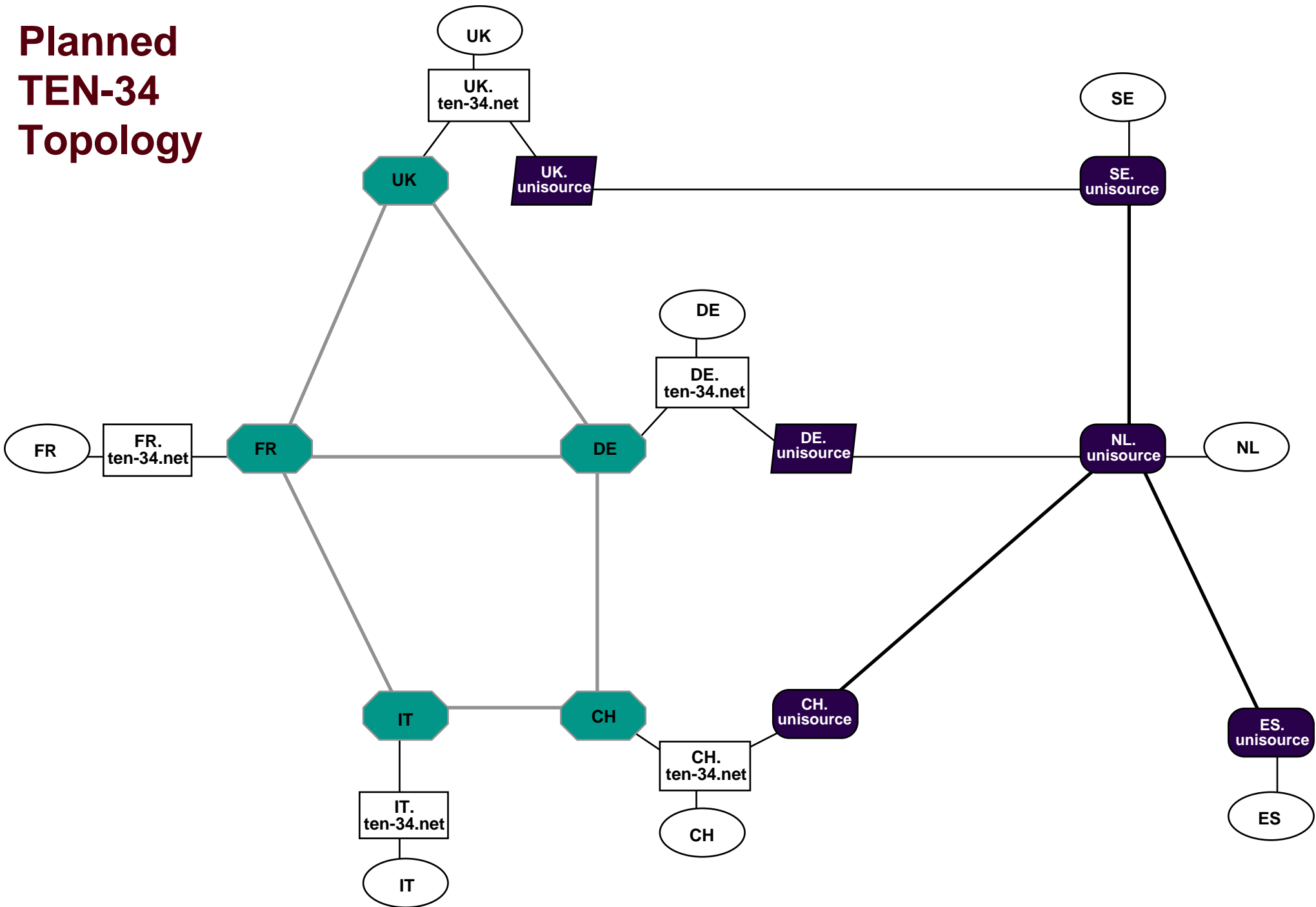
TEN-34 Project

- **NRNs as full partners**
- **DANTE as Coordinating Partner**
- **PNOs as Associates/subcontractors**
- **JAMES collaboration for ATM validation**
- **EC contribution of 12 MECU (15 months)**

Planned Configuration

- **Unisource sub-network**
- **FUDI sub-network**
- **Interconnection between sub-networks**
- **"Non-aligned" countries**

Planned TEN-34 Topology



Outstanding Issues

- **Cost allocation**
- **Detailed configuration**
- **Acceptance**
- **Derogation/ONP**
- **Transatlantic integration**

Progress/timetable

- **Contract signed (?)**
- **Technical specification advanced**
- **Associate contracts being negotiated**
- **Milestone 1 deliverable due end May 1996**

Conclusions

- **EU lagging behind US because of unavailability of basic components, ie high speed circuit capacity**
- **Consequence: no service providers, no services**
- **Liberalisation will have an effect but will take time**
- **Cooperation between PNOs and NRNs is needed**
- **TEN-34 provides the vehicle**