



Organising the Information Superhighway for European Researchers



The logo for DANTE features a stylized arc of blue stars above the word "DANTE" in a serif font, with a question mark to its right.

What is DANTE ?

- **not-for-profit SME established in 1993**
- **set up and owned by national university networks**
- **to complement their services at a European level**
- **turnover 1995: 14 MECU**



Why DANTE ?

Before Chaotic network infrastructure in Europe,
waste of (public) resources, inefficiency.

Now **EuropaNET**: one backbone network: fully
managed, high quality, (costs) shared by all.

Difference Economies of scale, efficiency, quality of
service,
focus for future development.

DANTE's customers, the national research networks in Europe:

Austria	ACOnet
Belgium	BELNET
Czech Republic	CESNET
Estonia	EEnet
France	RENATER
Germany	DFN/WIN
Greece	GRnet
Hungary	Hungarnet
Ireland	HEAnet
Italy	GARR
Latvia	LATNET
Lithuania	LITNET
Luxembourg	RESTENA
Netherlands	SURFnet
Poland	NASK



NORDUNET
Denmark
Finland
Iceland
Norway
Sweden
Portugal
Slovakia
Slovenia
Spain
Switzerland
UK

Nordic countries
DENet
FUNET
ISnet
UNINETT
SUNET
RCCN
SANET
ARNES
RedIRIS
SWITCH
UKERNA



The role of the research networks

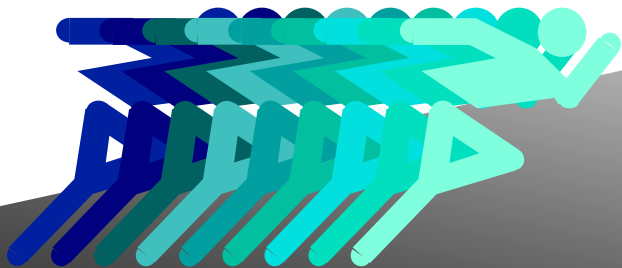
- **Pioneers of the Internet**
- ***'Paving the Information Superhighway'***
- **Developing and piloting user applications**
- **Advanced service providers and users**
- **Pool of networking experience and expertise**

European Internet vs US Internet

EuropaNET: maximum line speed is **8** Mbit/s

US Internet: **45** Mbit/s is routine

Nationally **34-155** Mbit/s is becoming routine



TEN-34: a big step forward

- 12 MECU contract from EC
- Consortium of all (western) European research networks
- All major telecom operators
- DANTE is coordinating partner
- Objective: **34 Mbps network as soon as possible**

The missing policy framework

- **US Internet: guided (and funded) by long term government policy**
- **Closely integrated with US industrial policy**
- **Not the case in Europe**
- **European researchers are losing out**
- **European industry is losing out**
(US network products already dominate the European market)

The slide features several light blue, semi-transparent stars of varying sizes scattered across the background. One large star is positioned on the left side, partially overlapping the list. Another large star is at the bottom left corner. The title is centered at the top, and the list is on the right side.

Funding of US-Europe connectivity

- **Traffic between Europe and US is balanced**
- **Europe pays over 80% of line cost**
- **Partly due to historical reasons**
- **Commercially unacceptable situation**

Telecommunications supply in Europe

- **A set of national markets**
- **Cross-border services in Europe very expensive**
- **Performance of cross-border services in Europe services limited**
- **ONP is a step in the right direction**
- **ONP is nationally focussed**
- **Need for pro-active regulation on price and service**

We have a dream...

- **One, agreed, long-term EC R&D networking strategy**
- **Closely integrated with industrial policy**
- **Dedicated policy body to carry it out**
- **Stable funding mechanism to support it**
- **Based on user requirements (e.g. DANTE)**