Euro6IX

The Pan-European IPv6 IX Backbone

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Euro6IX: The Concept

- How to pronounce it: it's a words/letters game …
  - forget IX and read 6 ("SIX")

- Build a Native IPv6 Backbone of Traffic Exchangers, with connectivity across Europe and other IPv4/v6 Exchangers

- In order to promote and allow other players to trial v6 and port/develop key applications and services

- Target: 20.000 users in 3 years
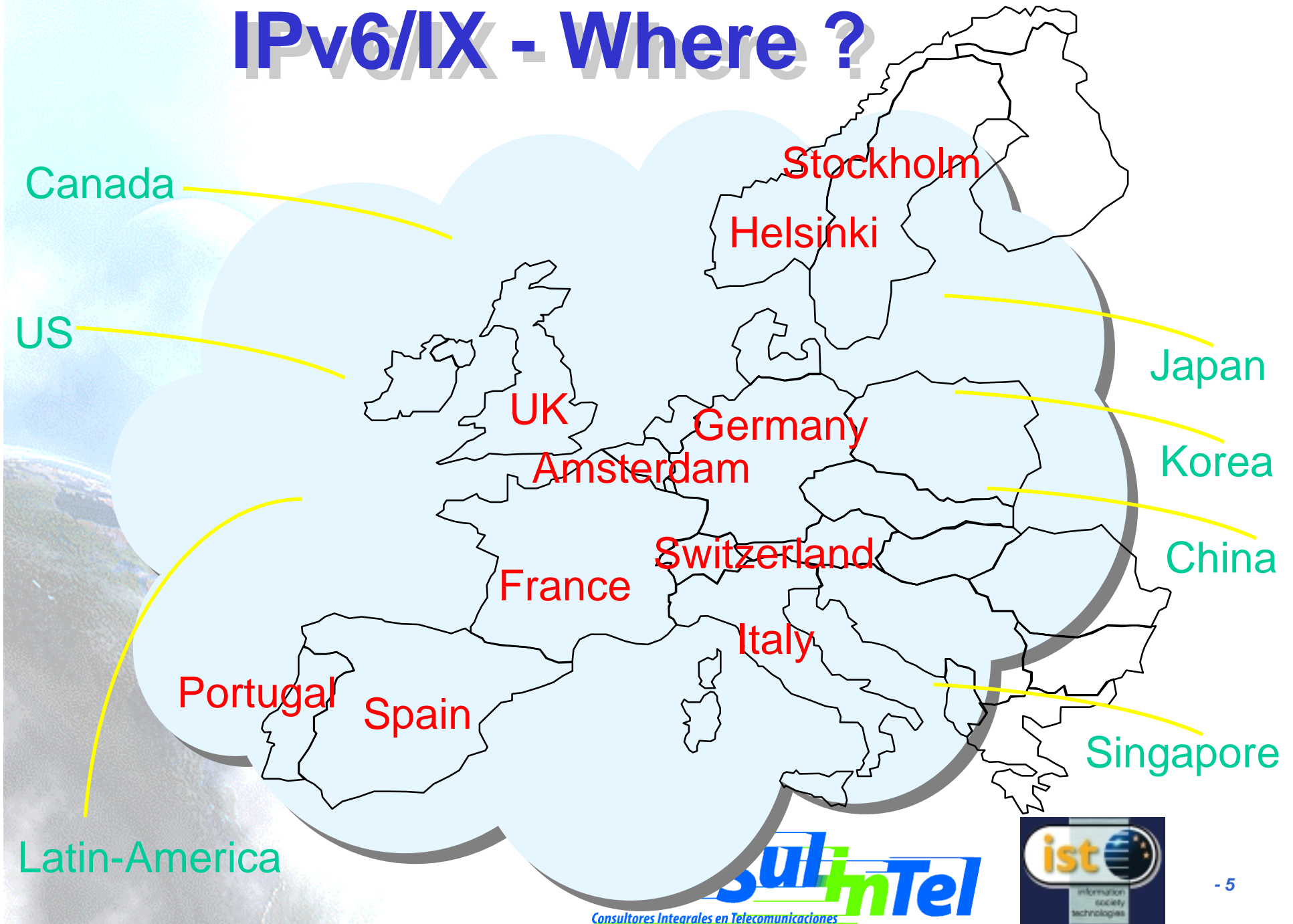
  *** PLUS: 100.000 ADSL users !

Why Euro6IX ?

- In order to break the chicken and egg issue !
- Gain REAL IPv6 experience, in a real world with not just research users, involving Telco's/ISP's/ASP's, among others
- Build a LARGE native IPv6 network, scalable
- Allow new players into our trials
- Bring IPv6 into a production transit service
- Learn about the legal aspects related to IPv6

Consortium Members (18)

- Telco's/ISP's (7):
  - TILAB (WP2 leader), Telefónica I+D (WP3 leader), Airtel Vodafone, British Telecom, France Telecom, Jippii Group Oyj, Portugal Telecom Inovação
- Industrial (3):
  - 6Wind, Alcatel, Ericsson Telebit
- Universities (3):
  - Technical University of Madrid (WP4 leader), University of Southampton (WP6 leader), University of Murcia
- Research, System Integrators and Consultancy (3):
  - Consulintel (WP1 leader and project coordinator), Telscom (WP5 leader), novaGnet systems
- Others (2):
  - Ecija & Asociados Abogados, Eurocontrol

IPv6/IX - Where ?

Canada

Stockholm

Helsinki

US

Japan

UK

Germany

Korea

Amsterdam

Switzerland

China

France

Portugal

Italy

Spain

Singapore

Latin-America

Work Package Description

- WP1: Project Management
- WP2: Network Architecture Design
- WP3: Network Implementation
- WP4: Associated Research, Trials and Evaluation
- WP5: Liaison & Interconnection, Dissemination
- WP6: 6NET Project Cooperation

WP1: Project Management

- Overall Project Management
- Assessment and Evaluation of Project Progress
- Awareness and Dissemination Activity monitoring
- Project Reporting
- Advice of a global nature in relation to legal areas of the project
- Legal support and analysis of the legal issues of each WP

WP2: Network Architecture

- Definition of the IPv6 backbone architecture and topology
- Definition of the internal network architecture of each IPv6 Internet Exchange (IX) point
- Identification of the IPv4/v6 interoperability/transition facilities to be provided by each IX point
- Identification of the available options for the interconnection of each IX point with the nearest backbone PoP
- Definition of the overall IPv6 addressing plan, and BGP4+
- Design of the IPv6-capable DNS system
- Identification of the links towards other IPv6 networks and definition of the of the high-level BGP4+ policies to be implemented
- Design of the overall network management system

WP3: Network Implementation

- Identify the network equipment required
- Make available an IPv6 xDSL access technology system
- Install all network devices in the POP's
- Deploy at least one central IX node in each country
- Set up the links among all national and international central IX nodes
- Ensure the stability of the network and design the statistics, control and maintenance systems
- Foresee the technical evolution and future usability of the Euro6IX network

WP4: Research, Trials & Eval.

- Research area:
  - Mobility, Security, Unidirectional Link Routing (UDLR), Active Services, Distributed Systems, QoS/CoS, VPN's, Multicast, Personal data

- Applications area:
  - Code porting, web tools for address delegation, instant messaging application, on-line education tools, billing tools, web mail tools, audio/video over IPv6

- Trials and Evaluation area:
  - Broadband MAN interconnection, massive access (IPv6 over "xxx"), multi-homing/renumbering/DNS, DHCPv6, transition/legacy services, user testing/support, demonstration platforms

WP5: Liaison & Dissemination

- Liaison with other projects, European, National and International

- Contribution to Standards Meetings (IETF, MWIF, ETSI, 3GPP/3GPP2, ITU, …)

- Concertation meetings, in order to promote and establish project clusters

- Public Dissemination

- Public Web Site (www.euro6ix.net/com/org … soon !)

WP6: 6NET Project Cooperation

- Both proposals are quite complementary, not just in the nature of each one, too in the diversity of each consortium participants.

- We consider very serious and support the Commission "mandate" in order to keep a strong cooperation.

- We really expect this will be a very profitable WP for both projects

It's a matter of European

and worldwide benefit …

When ?

- Called for IST negotiation: dead line on 29th August

- Project to be signed around beginning of September, after the positive negotiation (!)

- START of project on 1st October (?)

- Duration: 3 Years, minimum.

Wish us good lucky !

What Next ?

- **Open to any related initiative**
- **Waiting for "customers", not just pure research, willing to connect to our network**

- **AIM: all-IPv6 …**

  for an IPv6-e-Europe