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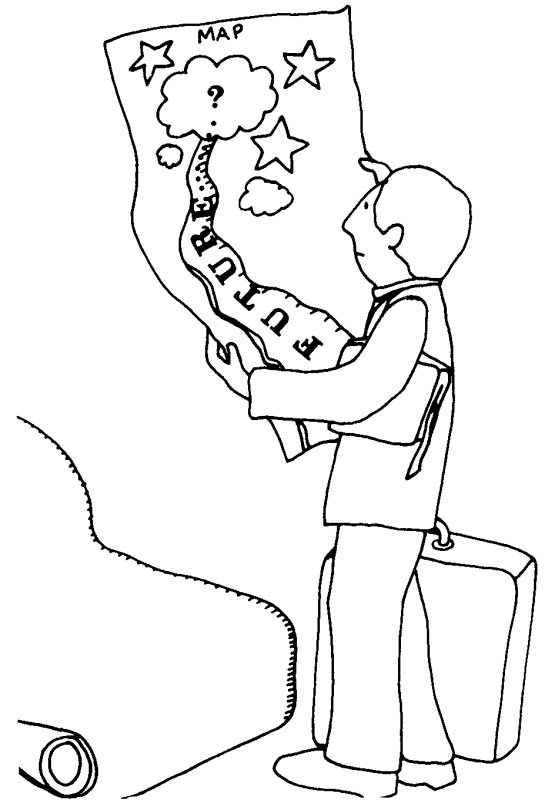
# Evolution of Languages and Multilinguality in 21<sup>st</sup> Century Europe

Visions and Speculations of a Futurist

Contribution to the Conference  
„Market of Languages - Languages of the Market“  
Brussels, June 26, 2000

# Overview

- **Trends in the Evolution of Languages**
- **Impact of Language Technologies**
- **Multilingualism in Europe: Scenarios**
- **Conclusion**



# Driving Factors for Language Evolution in Europe

*Market Globalization*  
*Cultural Globalization*

*Global Migration*

*European integration*



Technological Innovations  
Information Revolution

*New communication technologies*

*New Lifestyles*

# Trends: A Situation Like in Medieval Times

- Growing influence of a Lingua Franca: English
- Disappearance of local languages
  - e. g. Sorabian lang.
- Loss of norms
  - e. g. orthographic standards
- New ephemeral dialects & special idioms of
  - subcultures
  - age groups
  - lifestyle groups
- New Creole languages of immigrants

A revolution is under way...

# Trends: Commercialization of Language

- Impact of Media and Advertisement
- Market of words („Verbalienmarkt“):
  - Brand names as intellectual property and commodities
  - Competition for Internet domain names
- Some effects
  - Brand names penetrate into common usage
  - Grammatical rule-breaking as means of attracting attention

# Impact of Language Technologies

**2007** Speech and speaker  
recognition

**2007** Highspeed speech  
synthesis

**2007** Speech communication  
with intelligent homes

**2010** Automatic translation of  
documents without  
manual revision

**2014** Pocket translators with  
speech input and output

## Open Questions:

- „Do we need to talk to the toaster?“
- Will written language disappear as a common cultural technique?

# Impact of Internet & Mobile Phones

- E-Commerce  
via Internet
- M-Commerce  
via WAP mobile phones
- V-Commerce  
via talk-WAP phones?

Anderson Consulting:  
90% of global enterprises consider  
applying language technologies for  
internal communication and  
customer relation management.



**Portable translator by  
Xybernaut & linguattec, 2000**

# Impact of Internet & Mobile Phones

- Email and Chat Room communication liberalise orthographic standards
- English strengthened as Internet lingua franca



**Will language get detached from space?**



# Language Problems for the EU

Problems we are used to:

- Language barriers between member states
- Costs of translation
- Question of official working languages

Problems connected to the enlargement:

- ca. 140 European Languages & Dialects
- Language problems for Eastern European SMEs

More than 40.000 official EU documents are to be translated! (not speaking of their transformation in national legal acts...)

# EU Programs: Human Language Technologies



## Aims:

- Cost-effective interchanges across languages and cultures
- Natural, easy to use, interfaces to digital services
- Intuitive and effective use of digital content

# Scenarios for Language Use at the European Union Level: Horizon 2030

- Euro Babel
- Union Language
- Zero-Language Solution
- CAM - Computer aided multilingualism

# Scenarios for Language Use

Language technology maturity

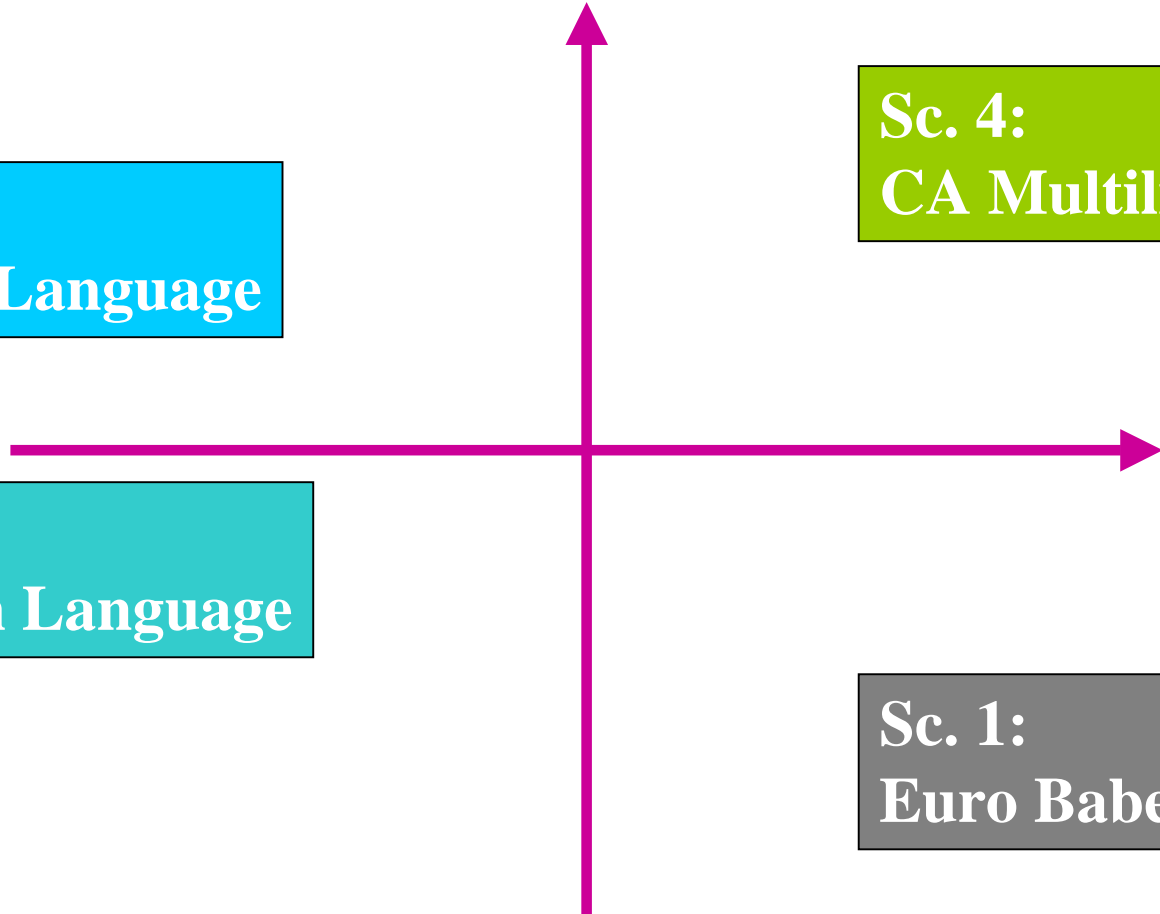
Sc. 3:  
Zero-Language

Sc. 4:  
CA Multilingualism

Sc. 2:  
Union Language

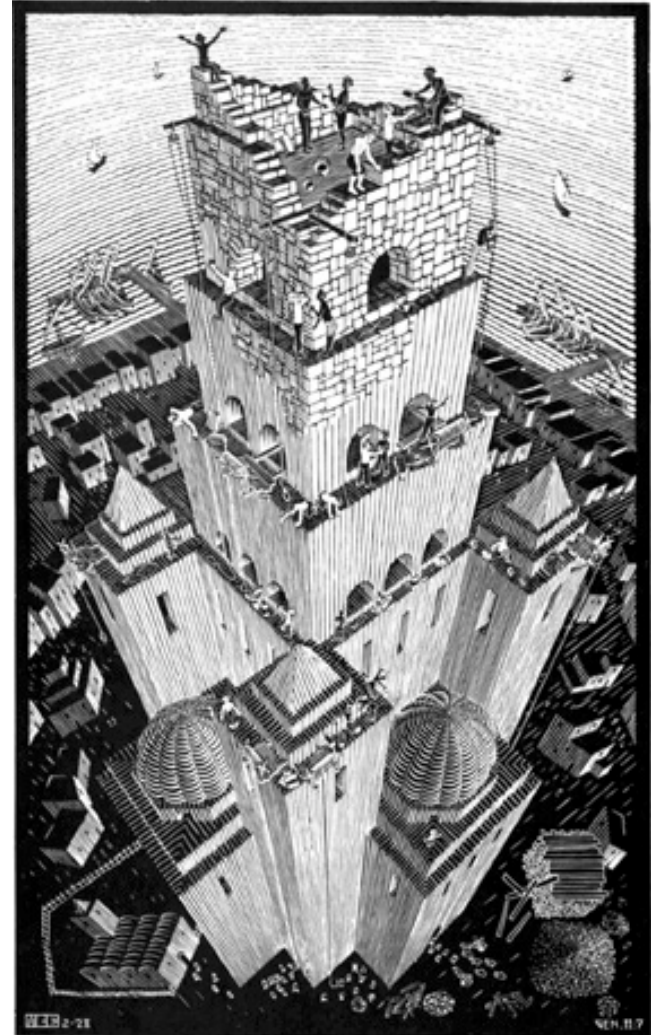
Linguistic  
diversity

Sc. 1:  
Euro Babel



# Scenario 1: Euro Babel

- Aggravation of current trends
- Language problems as a menace to
  - European coherence
  - European competitiveness



# Scenario 2: Union Language

On the administrative level: „Brusselisation“

- Domination of an European administrative language
  - probably English
  - or an artificial language like Esperanto

On the street level: „Parlons Eurish“

- Development of an Inter-European Pidgin language

# Scenario 3:

## The Zero-Language Solution:

### Concept to Text / Speech

- For official documents:
- documents are not created in form of texts but as concept files (XML)
  - automatic text synthesis from concept file in any chosen language
- + No official languages necessary
  - feasible only for documents, not for political dispute, business negotiation or everyday conversation

**Inspired by VieCtoS - Vienna  
Concept to Speech Project  
(OeFAI 1997ff)**

# Scenario 4: CAM - Computer aided multilingualism

## Political goals

- „equal opportunity“: non-discrimination of („minor“) languages
- enhanced competitiveness
- cultural & linguistic diversity
- European coherence

## Policies

- multilingual education (not just English as second language!)
- multilingual media (like Arte channel)
- improvement of HLT
- no reliance on purely technical solutions



# Sc. 4: A Vision - The „Humanistic Dialogue“

- In conversation, everybody uses his or her native language
  - Everybody understands as many as possible foreign languages (passive competence)
- + Non-discriminating
  - feasible only for a couple of main languages

**Inspired by Roland Posner: „Good-bye, lingua teutonica?“ (1987)**

# Conclusions

- Linguistic diversity is not an obstacle to European integration but an intellectual resource of growing importance.
- Multilingualism is a main prerequisite for European coherence and should be an educational goal throughout Europe.
- Not only from a political point of view, a non-discriminating approach to the „minor“ languages of Europe is a desideratum.