Think beyond the limits!

European Media Laboratory GmbH

From Applied Research to the Market

Experience IT! Intuitive Technology

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EUROPEAN MEDIA LABORATORY GMBH

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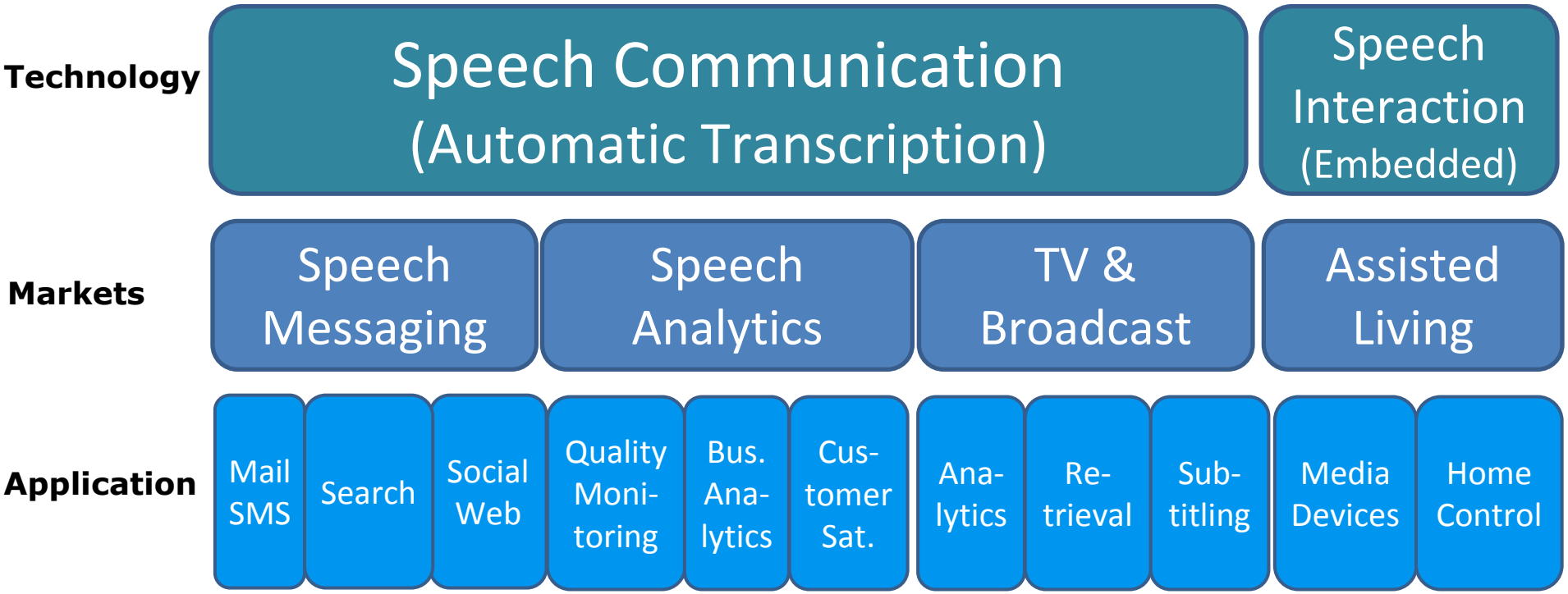
European Media Laboratory (founded 1997)

- **Offerings: Research-based Products, Solutions and Services**
  - Mobile, Location-based Pedestrian Portal Technologies
  - Situation-Aware Mobile Applications
  - Service-oriented, adaptive applications
  - **Speech Interaction: Multi-model, Speech User Interfaces**
  - **Speech Communication: Telephone & Media Transcription**



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Telephone & Media Speech-to-Text Applications

- **Speech Messaging**
  - Voicemail-to-SMS
    - Insight to Messages, Convenience
  - Voice Search (location-based services, FAQ)
    - City information access

- **Speech Analytics for Contact Center & Helpdesks**
  - Customer Inquiries
    - Call routing, Customer Satisfaction, Customer Insight
  - Automated Quality / Activity Monitoring
    - Agent Performance, Business Intelligence

- **Media Transcription**
  - Search Media, Pre-final Transcript, Subtitling

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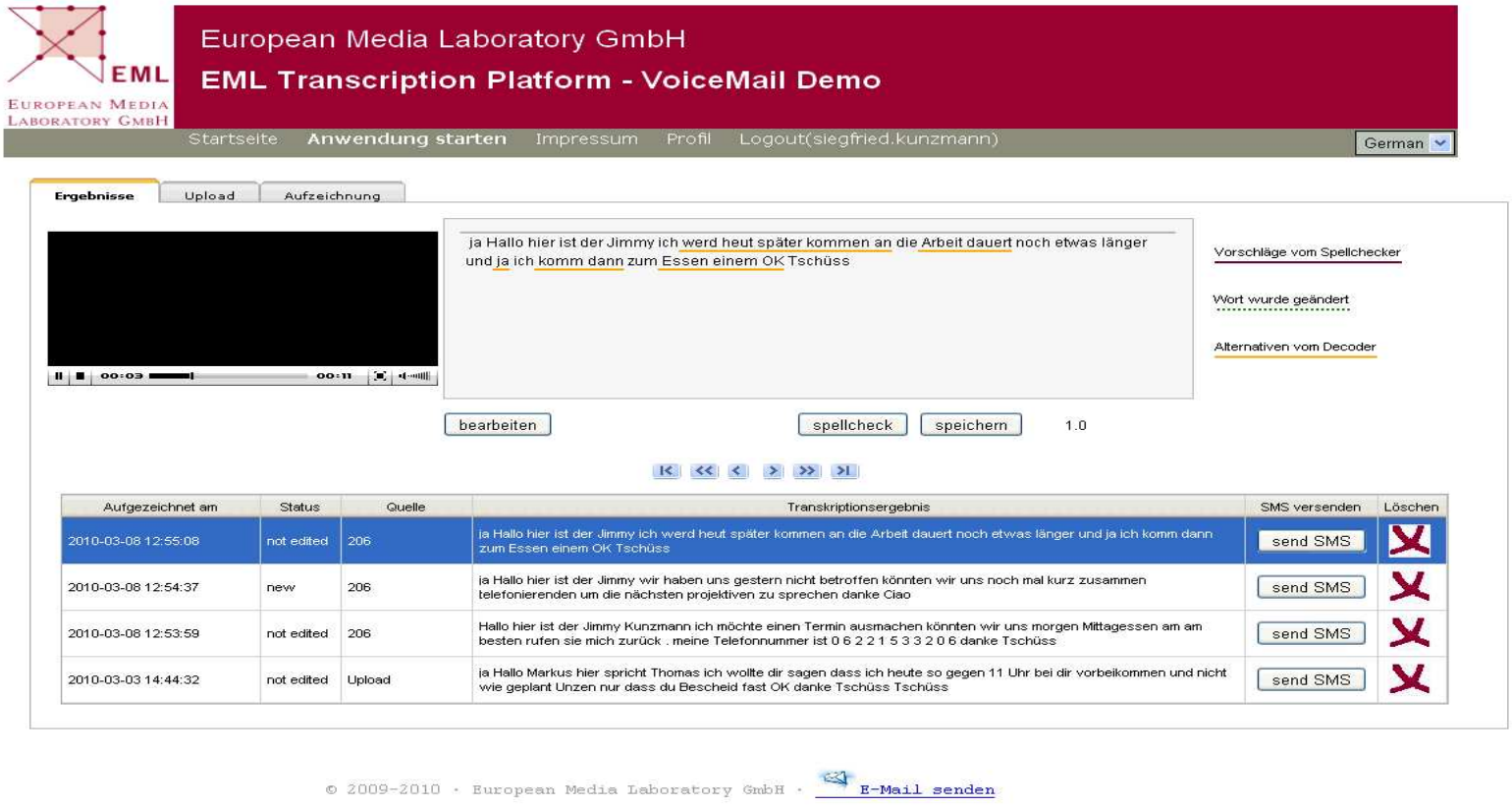
Speech Messaging – Voicemail

mobilkom austria

- **Objective:** Automatically Convert Voice Messages to Text
  - Send text or categorized content (e.g. appointment & time) as SMS or Mail
- **Benefit:** Receiver gets insight on relevance of received messages
- **Scenario:** Voicemail transcription



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Voice Search – Location-based Services

- **Objective:** Fast and convenient search interface on mobile devices
- **Benefit:** Search places, restaurants, events, … by speech
- **Scenario: Search Locations by Voice**

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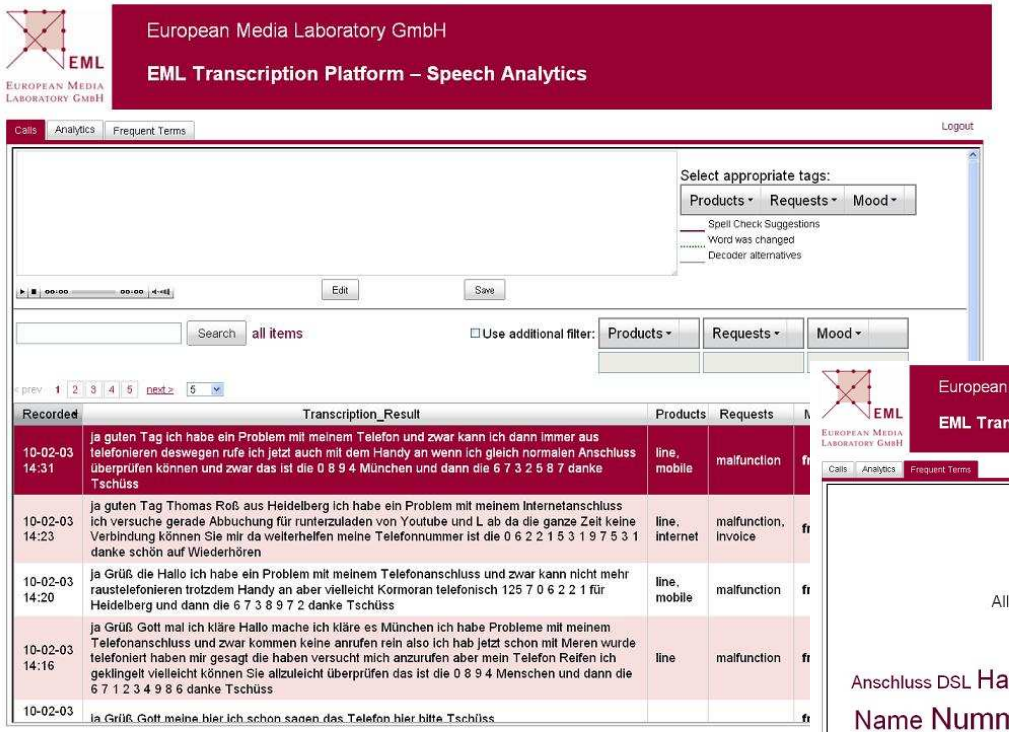
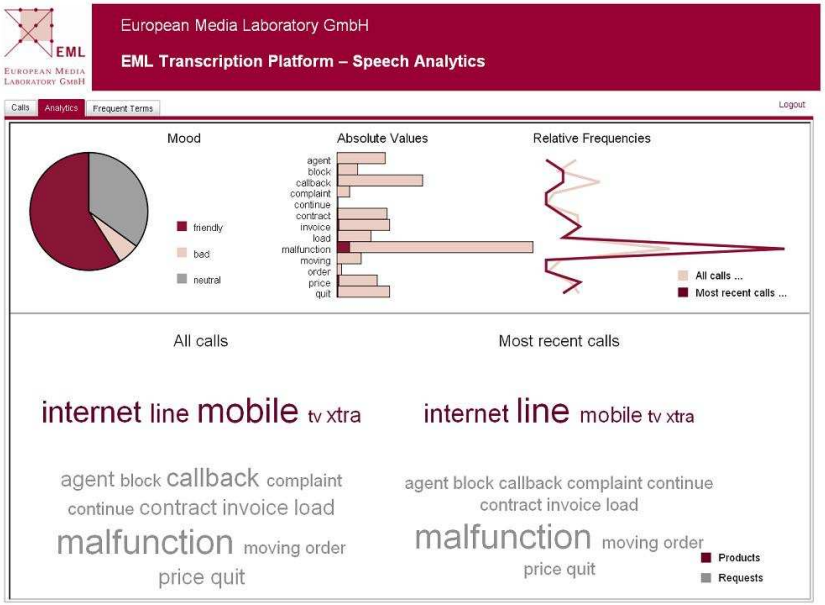
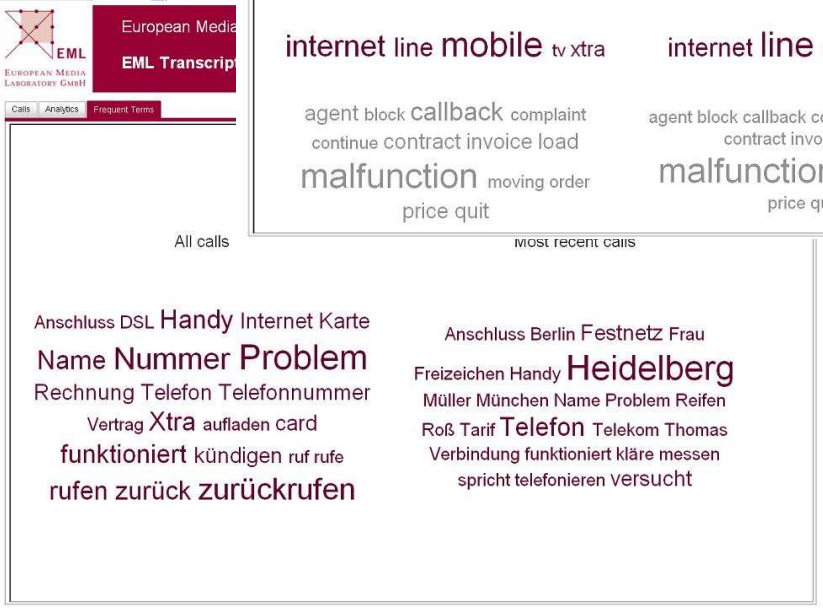
Customer Inquiries – Before/during/after Call

- **Objective:** Interview customer before/during/after call + statistical analysis
- **Benefit:** Measure and improve customer satisfaction
- **Scenario:** Speech-to-Text Web-Interface







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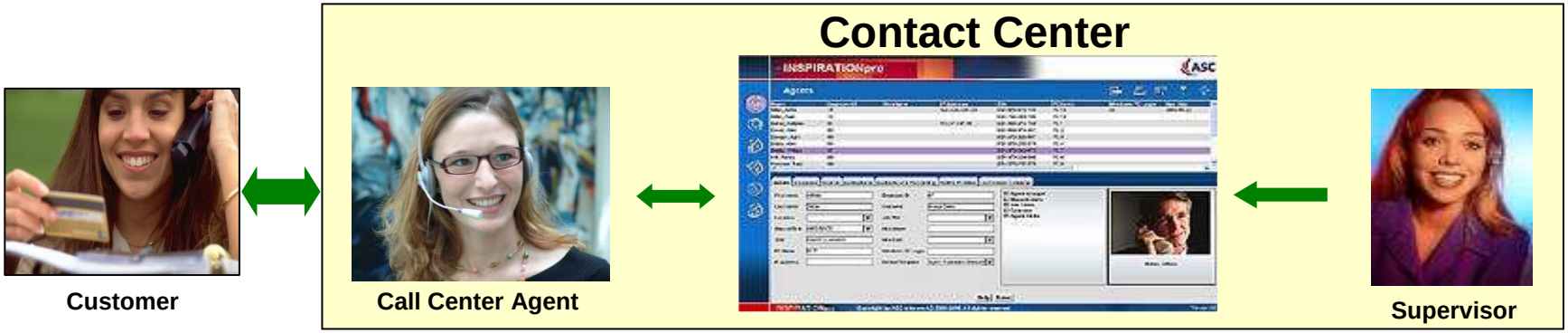
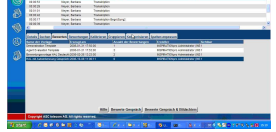
Automated Quality & Activity Analysis



- Recording & quality monitoring platform: record & store customer calls
- **Speech-to-Text: transform human conversations into text**
- Automatic call analysis
  - **Text & times used as indexes for retrieval & analysis**
  - **Call Categorization: assign call category & route appropriately**
    - **order, availability, cancelation, complaint, …**
  - Call Filter: spot few “bad calls” and improve evaluation process
    - “agent followed start/end procedure?”
    - “agent solved caller problem?”, …
  - Automatic Form Filling: Evaluation Sheet



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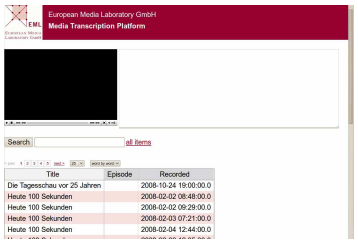
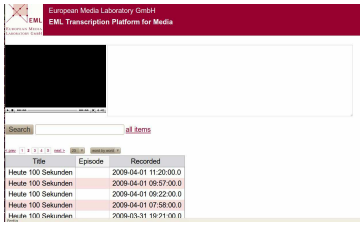
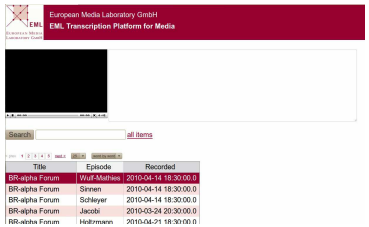
Media Transcription

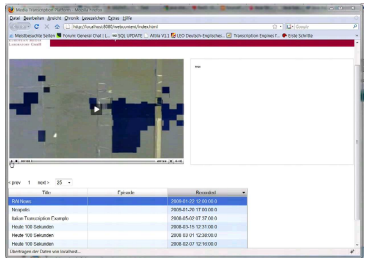
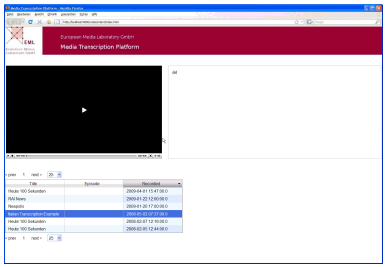
- **Objective:** Convert Audio Streams to Text & Time Tags
- **Benefit:**
  - **Search Media Content & Video / Audio on Demand**
  - **Pre-final Transcript** from Interviews
  - Video Subtitling / Close Captioning
- **Scenario:**
  - German: Broadcast News (“Heute in 100 Sekunden”)







  - Italian: RAI News, Camera dei Deputati

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Summary

- Focus of the European Media Laboratory
  - Develop & market usable software for humans
  - Provide robust speech-to-text systems for multiple languages
  - Partner to expand language portfolio
- Speech Communication Applications are reality
  - Scenarios: Speech Messaging, Speech Analytics, Media Transcription
  - High quality requires technology tuning - that is…
    - **DATA, DATA, DATA**

Thank You ☺

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