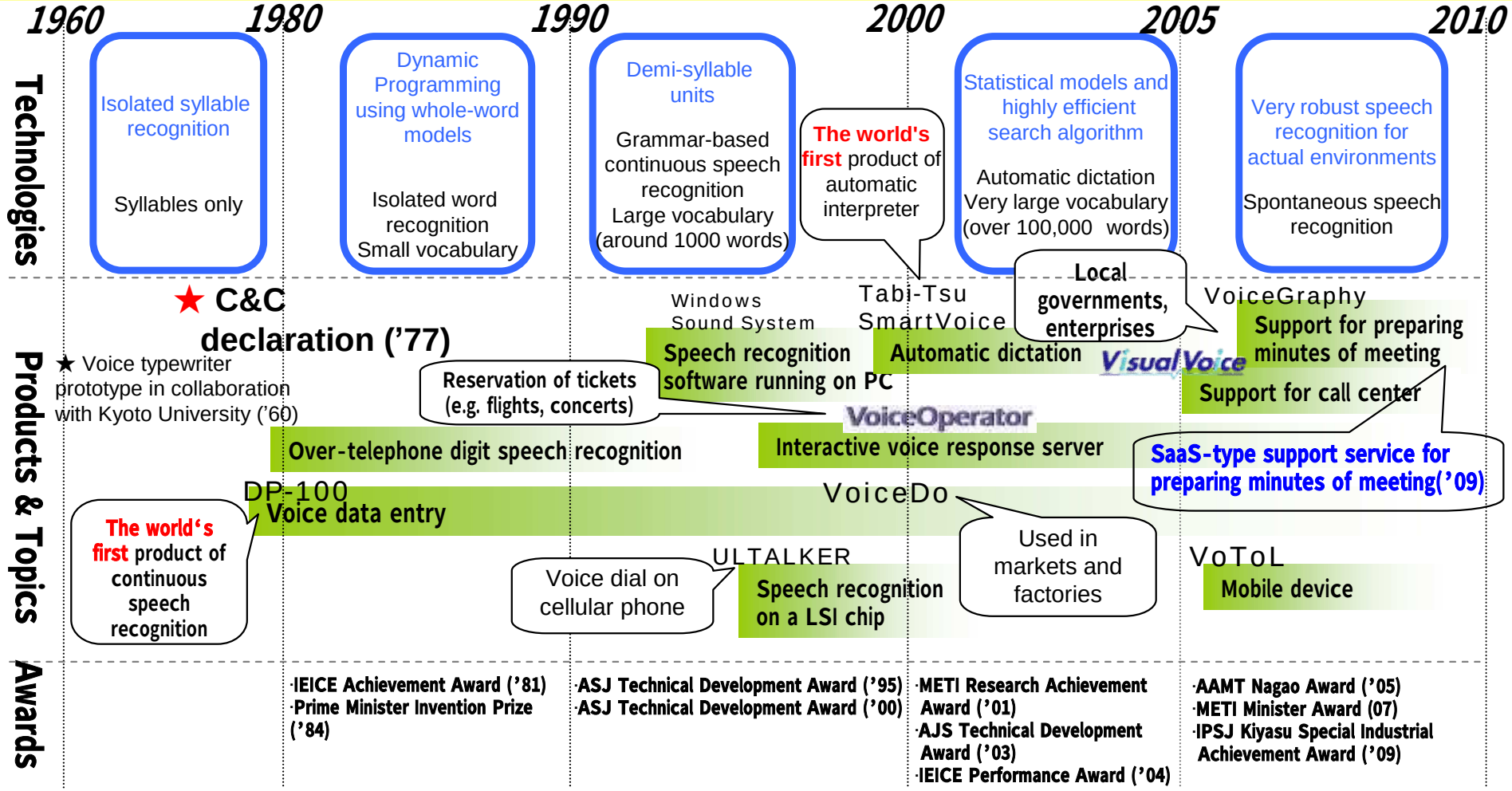
Spontaneous Speech Recognition for Human Communication Innovation

Our history

NEC has pursued research and development in the field of speech recognition technology since 1960, where it has continuously maintained world-class technological capabilities and commercialized products over half a century.

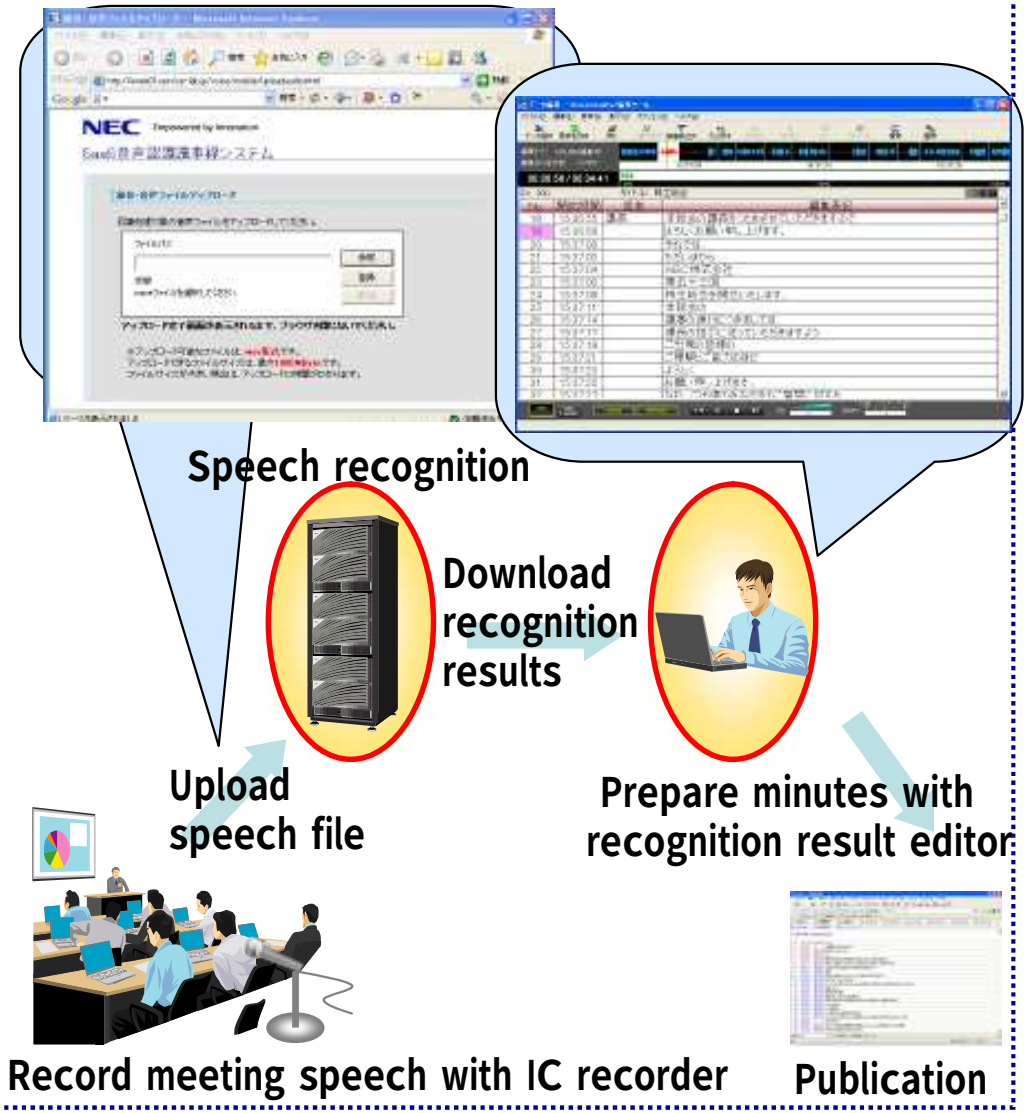


Speech Recognition Technology -- SaaS-type support service for preparing minutes of meeting

Service Features

- **Support for preparing minutes of shareholder's meetings, earnings announcements, seminars, lectures, etc.**
- **Provide as SaaS-type service that enables users to introduce easily for speech recognition faculty**
  - ✓ **30,000 yen for one hour meeting**
- **Technical features**
  - ✓ **Speaker independent very large vocabulary continuous speech recognition (over 100,000 words)**
  - ✓ **High recognition accuracy for multiple speaker utterances by automatic turn-taking detection (80% recognition accuracy in average)**
  - ✓ **Robust against noises appeared in meetings (chair movements, coughing, etc.)**

SaaS-type support service for preparing minutes of meeting



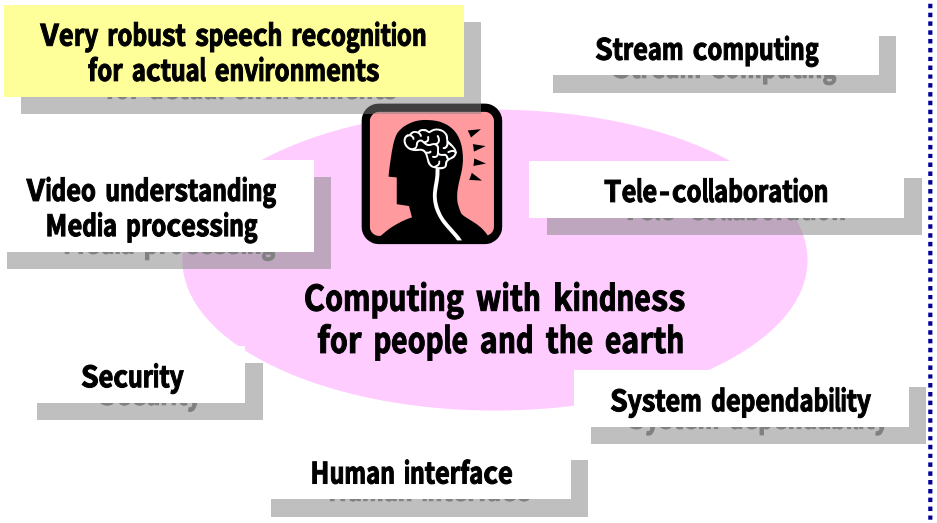
Speech Recognition Technology -- Innovation needed to "realize an information society friendly to humans and the earth"

Future research

Technical prospects

- Gather and value create from various types of information
  → Using multimedia information and data form various kinds of sensors
- Handle explosively increasing data
  → Gathering and analyzing for massive data with keeping reliability and dependability
- Eliminate the digital divide problems
  →Multi-functional information devices with advanced technologies

Technical innovations



Very robust speech recognition for actual environments

- Recognition of simultaneous speech by multiple speakers under various acoustic conditions
  Active microphone detection using the positional relationship among multiple microphones

- Recognition of conversations including multiple topics
  Topic adaptation based on basis topic language models