

EPSRC

Engineering and Physical Sciences
Research Council



Edinburgh – Cambridge – Sheffield

Natural Speech Technology Programme Overview

Steve Renals
Centre for Speech Technology Research
University of Edinburgh

20 May 2014

<http://www.natural-speech-technology.org>

Overall aim

Significantly advancing the state-of-the-art in speech technology

- making it more natural
- applied to speech recognition and speech synthesis
- approaching human levels of
 - reliability
 - adaptability
 - fluency

NST facts and figures

- EPSRC Programme Grant, May 2011–April 2016
 - Three university partners: Edinburgh, Cambridge, Sheffield
 - User group (14 organisations)
 - Scientific advisory board (5 members)
- The Team - 32 people!
 - 9 investigators
 - 17 research staff
 - 6 PhD students
- Strong links with other projects:
EPSRC, EU, DARPA, IARPA, NHS, JST, etc.

NST team



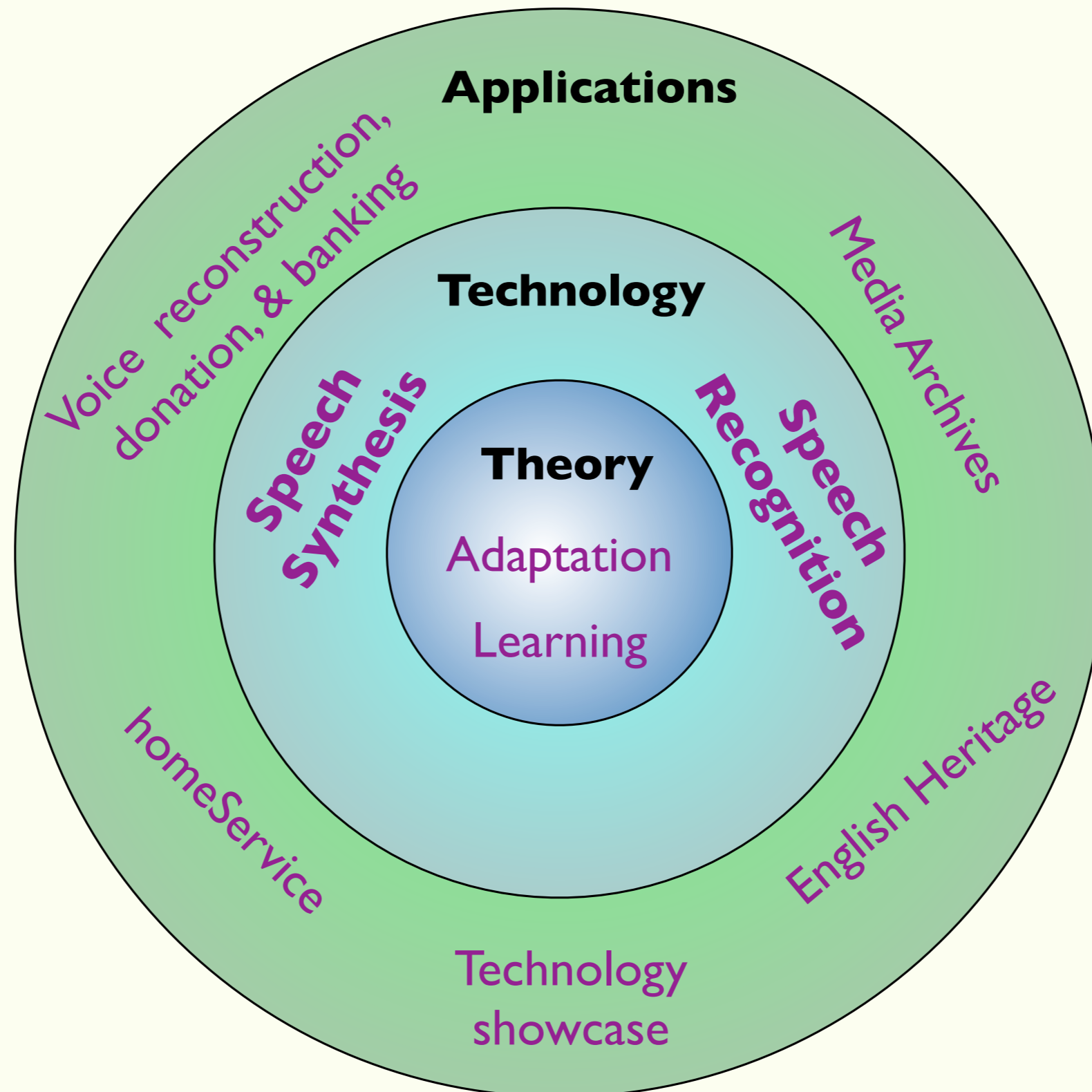
Edinburgh – Cambridge – Sheffield

- **CSTR, University of Edinburgh:**
 - Steve Renals, Simon King, Junichi Yamagishi
 - Peter Bell, Joris Driesen, Gustav Henter, Jonathan Kilgour, Liang Lu, Tom Merritt, Pawel Swietojanski, Christophe Veaux, Mirjam Wester, Zhizheng Wu
- **Speech Research Group, University of Cambridge:**
 - Phil Woodland, Mark Gales, Bill Byrne
 - Adrià de Gispert, Penny Karanasou, Pierre Lanchantin, Xunying Liu, Matt Shannon, Marcus Tomalin, Chao Zhang, Austin Zhang
- **Speech and Hearing Research Group, University of Sheffield:**
 - Thomas Hain, Phil Green, Stuart Cunningham
 - Heidi Christensen, Mortaza Doulaty, Charles Fox, Yulan Liu, Oscar Saz

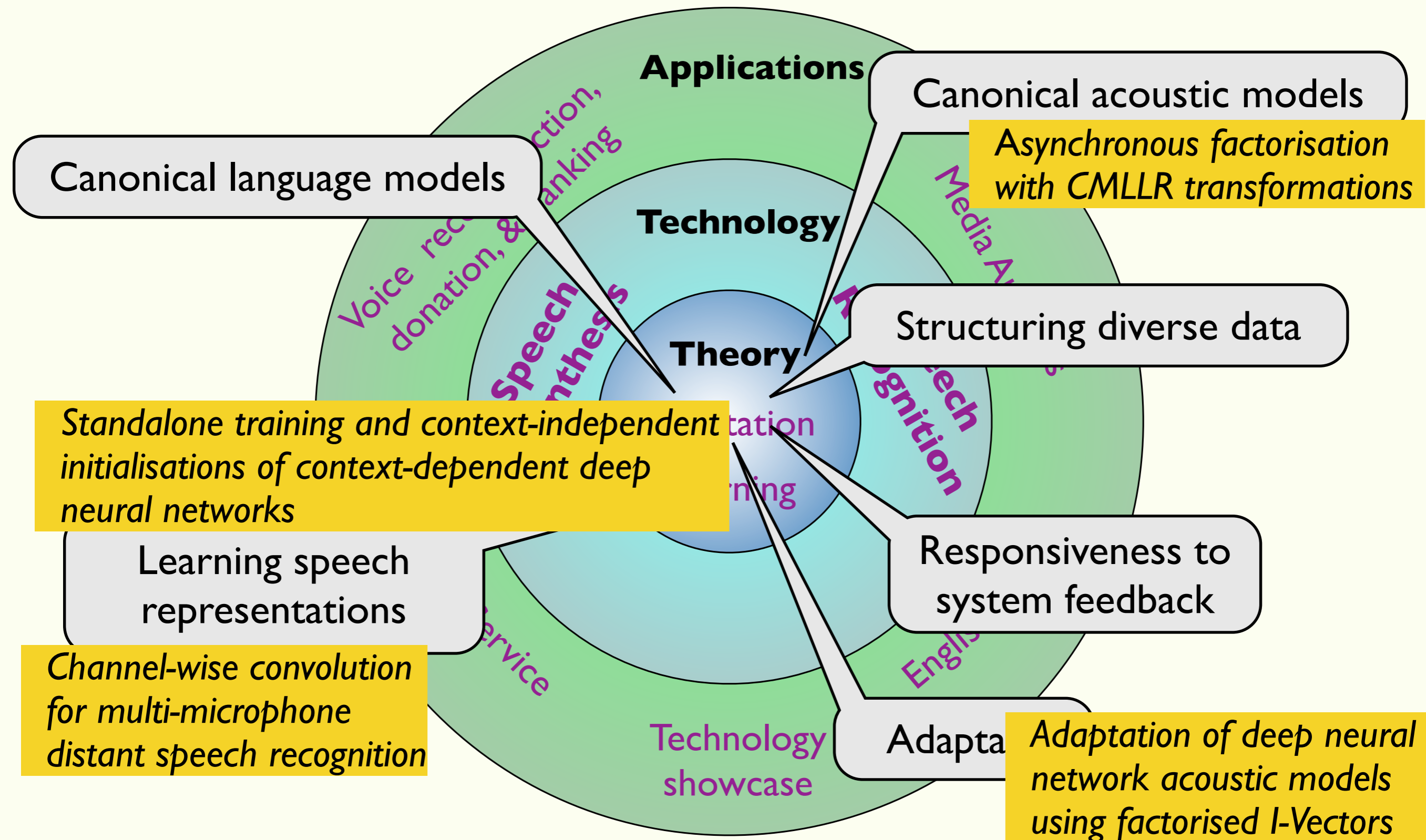
User Group Members

- Barnsley Hospital, Medical Physics & Clinical Engineering
- Devices for Dignity
- Euan MacDonald Centre for Motor Neurone Disease Research
- NIHR CLAHRC for South Yorkshire
- Toby Churchill Ltd
- Airbus Industries
- BBC Future Media & Technology
- Cereproc
- English Heritage
- GCHQ
- Nuance Communications
- Quorate Technology
- Red Bee Media
- Toshiba Research Europe

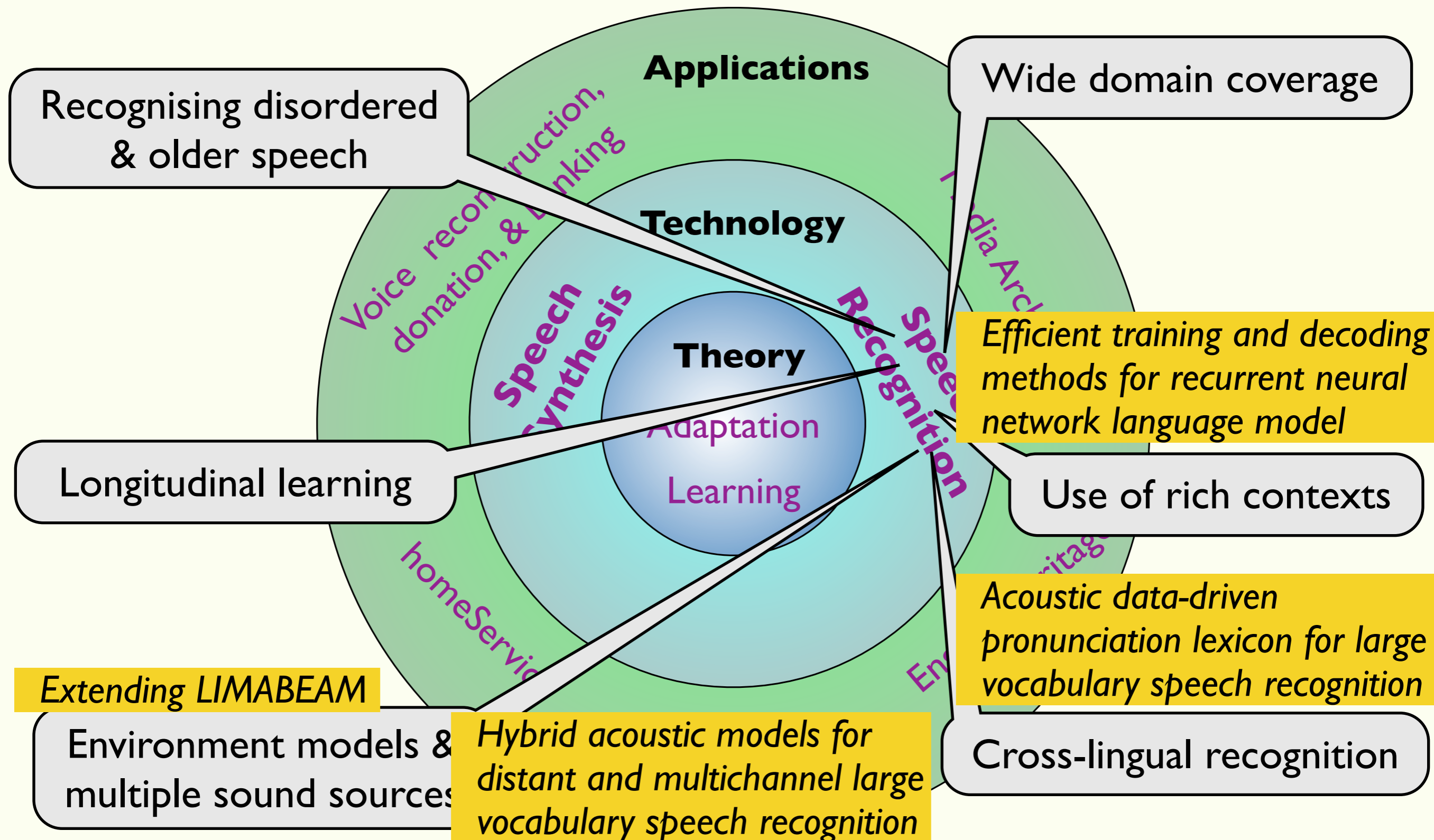
NST Research Areas



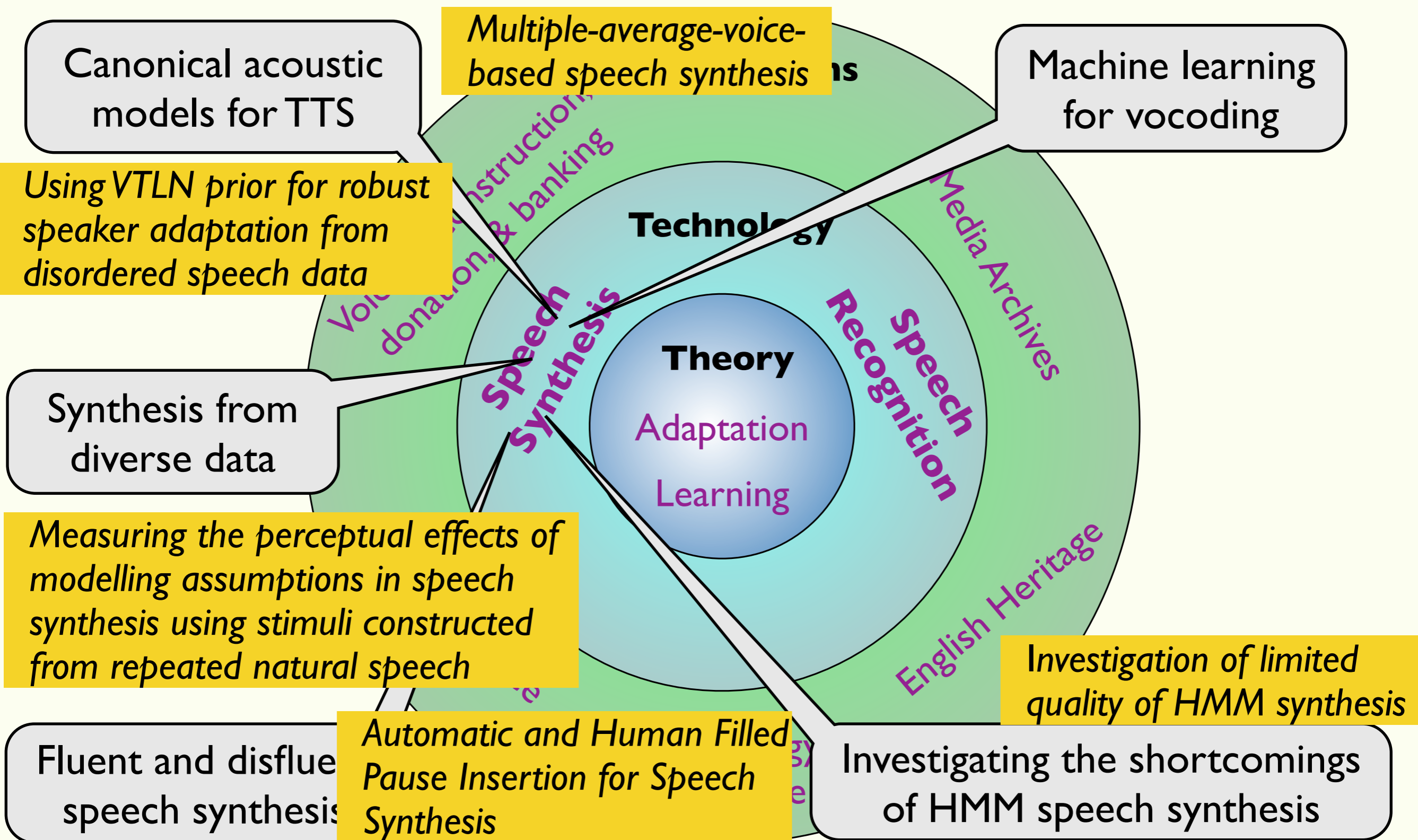
Learning and adaptation



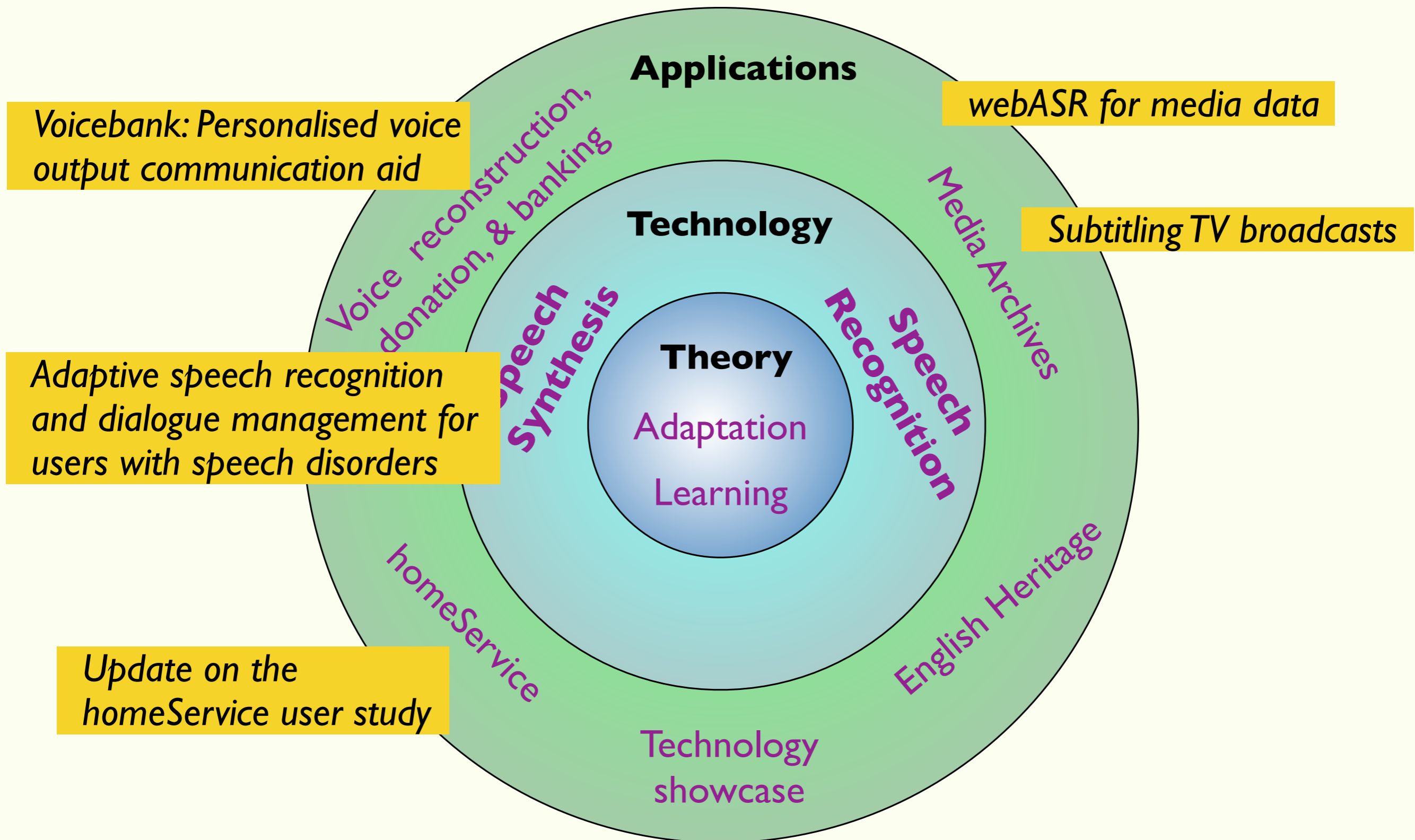
Natural transcription



Natural Synthesis



Applications



Today's agenda

- 9:30 – 11:00 Intro + 4 talks
- 11:00 – 12:30 Coffee + demos/posters
- 12:30 – 14:00 Lunch
- 14:00 – 15:15 4 talks
- 15:15 – 15:45 Coffee
- 15:45 – 17:00 Discussion
 - Clinical applications
 - Media applications
 - Future directions
- 17:00 – 18:30 *Advisory board meeting*
- 20:00 Dinner at Silversmiths