

With suitable speech materials, speaker comparisons are carried out by means of modern and validated voice biometric methods. For that purpose, stimmenvergleich.com uses cutting-edge language-, textand channel-independent Phonexia speaker identification software.

#### **Dr. Stefan Gfroerer**

Former head of the Speaker Identification and Audio Analysis Department at Bundeskriminalamt Phonexia Voice Inspector (VIN) provides police forces and forensic experts with a highly accurate speaker identification tool to support criminal investigations. It leverages the Al-powered Phonexia Deep Embeddings™ voice biometrics engine which is, based on an independent forensic study (forensic\_eval\_01) performed by Bundeskriminalamt, the most accurate automatic speaker identification technology available on the market.

## **Selected Features**

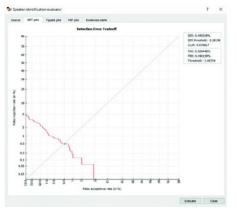
- 1:1 speaker comparison in accordance with ENFSI guidelines
- 1:N speaker identification for more complex cases
- A diarization tool to make working with audio recordings containing multiple speakers easier
- A phoneme recognizer for the searching and visualization of the same phoneme sequences across audio files
- An evaluation tool for the measurement of accuracy in a user's data sets
- A waveform editor with tools such as a spectrum panel, voice activity detection and more



Solving Everyday Challenges Through Voice

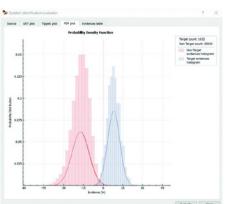
# Automati<mark>c Forensic</mark> Voice Comparison

The forensic\_eval\_01 study's details https://phonexia.com/en/forensic-report



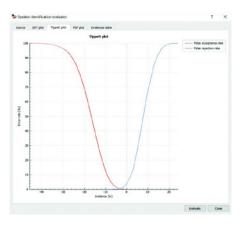
## **Technology**

- **Deep Embeddings**<sup>™</sup> uses deep neural networks to generate highly representative voiceprints
- Phonexia Voice Inspector is independent of language, accent, text and channel
- Applies state-of-the-art channel compensation techniques, verified by NIST evaluation
- **Compatible** with the widest range of audio sources possible: GSM/CDMA, 3G, VoIP, landlines, etc.



### Input

- Input format for processing:
   WAV or RAW (8 or 16-bit linear coding),
   A-law or Mu-law, PCM, 8 kHz+ sampling
- Minimum speech signal for enrollment:
  Recommended 20+ seconds
- Minimum speech signal for identification: Recommended 7+ seconds



## **Output**

- Scoring to a likelihood ratio (LR), log-likelihood ratio (LLR) and verbal presentation of results
- **Graphic presentation** of the likelihood ratio (LR)
- **Detailed report output** (expert opinion template automatically generated) for presentation of results (to a court or an investigation team)

## Solving Everyday Challenges Through Voice

- Chaloupkova 3002/1a, 612 00 Brno Czech Republic, European Union
- ☑ info@phonexia.com
- *→* +420 511 205 265

