

# MALMÖ ACADEMY OF MUSIC

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**Dragan Buvač**

**Music Production & Music Management**

**Sara Wilén**

**Mezzo Soprano & Artistic Researcher**

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### Low Latency

Low Latency AV duplex streaming system

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Low Latency AV duplex streaming system

Co-operation between University network services such as GÉANT

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## Low Latency

**Low Latency AV duplex streaming system**

**Co-operation between University network services such as GÉANT**

**Conservatorio di Musica Giuseppe Tartini (Trieste/Italy)**

**GARR - the Italian Research and Academic Network in 2005**

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### Main goals



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**High quality Audio & Video transmission - Teacher/Student/Masterclass**

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**Digital competence development for teachers and other staff**



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**Competence supply of highest level of teachers**

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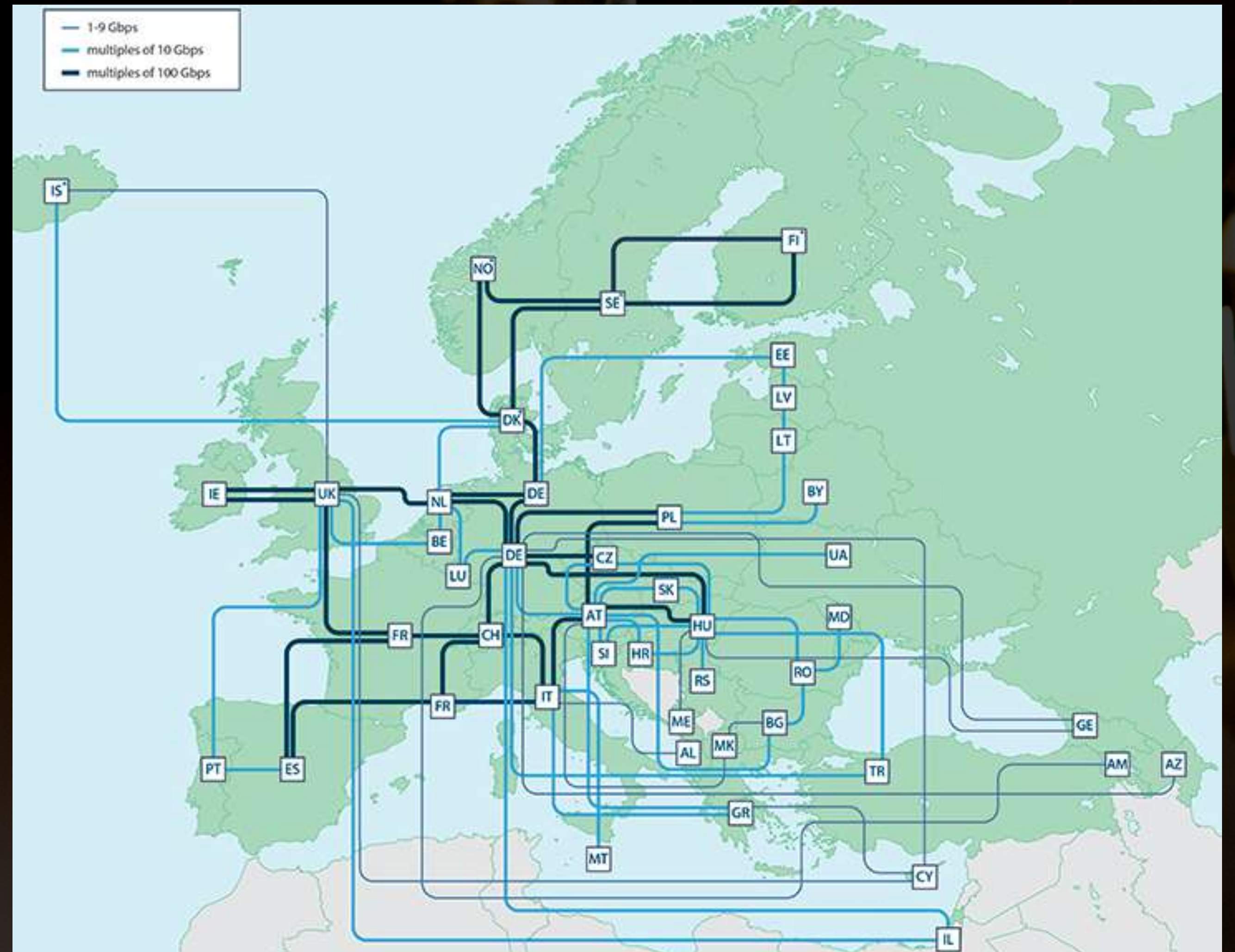
**Remote concert and performance collaborations**

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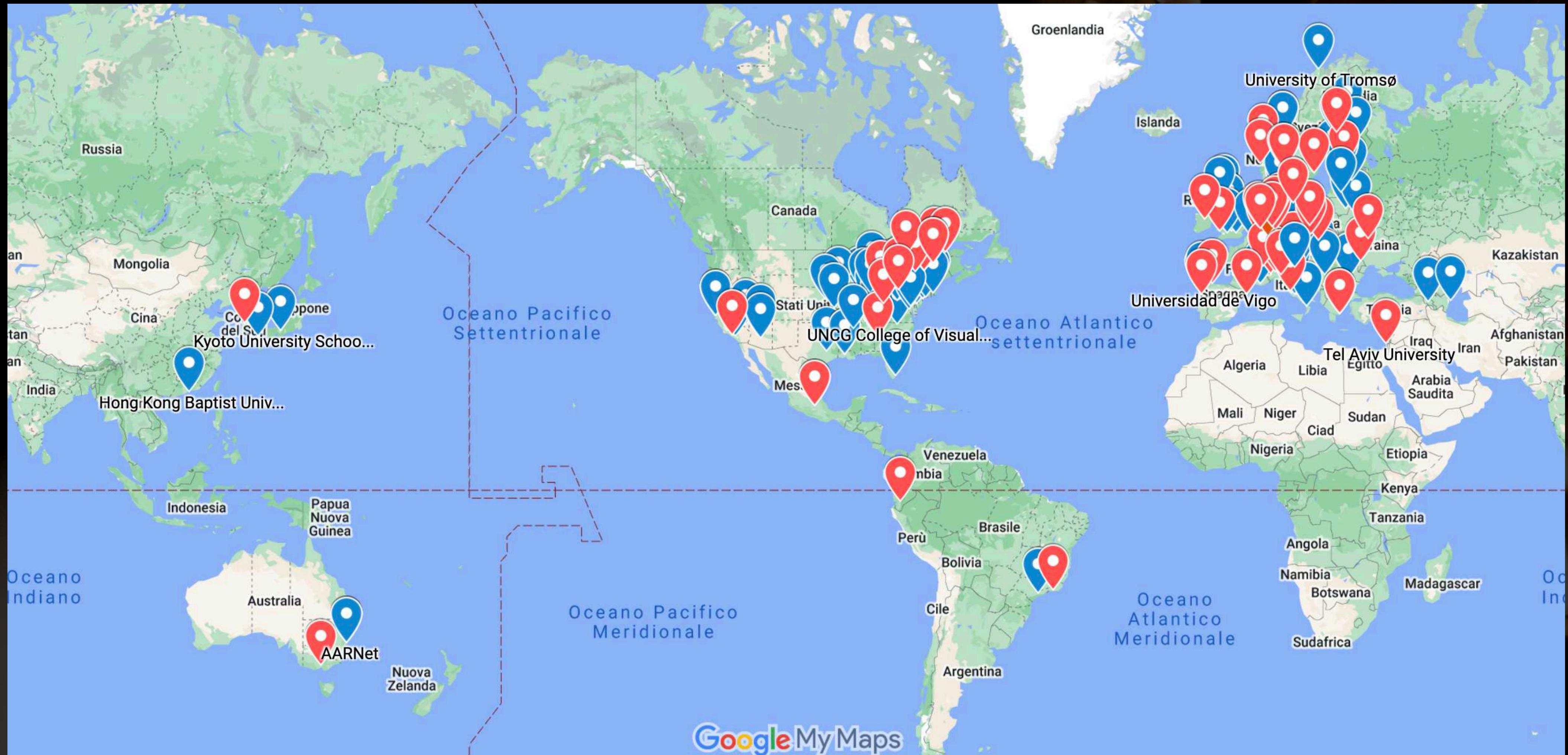


**Pan European Data Network  
for the research and  
Education Community**



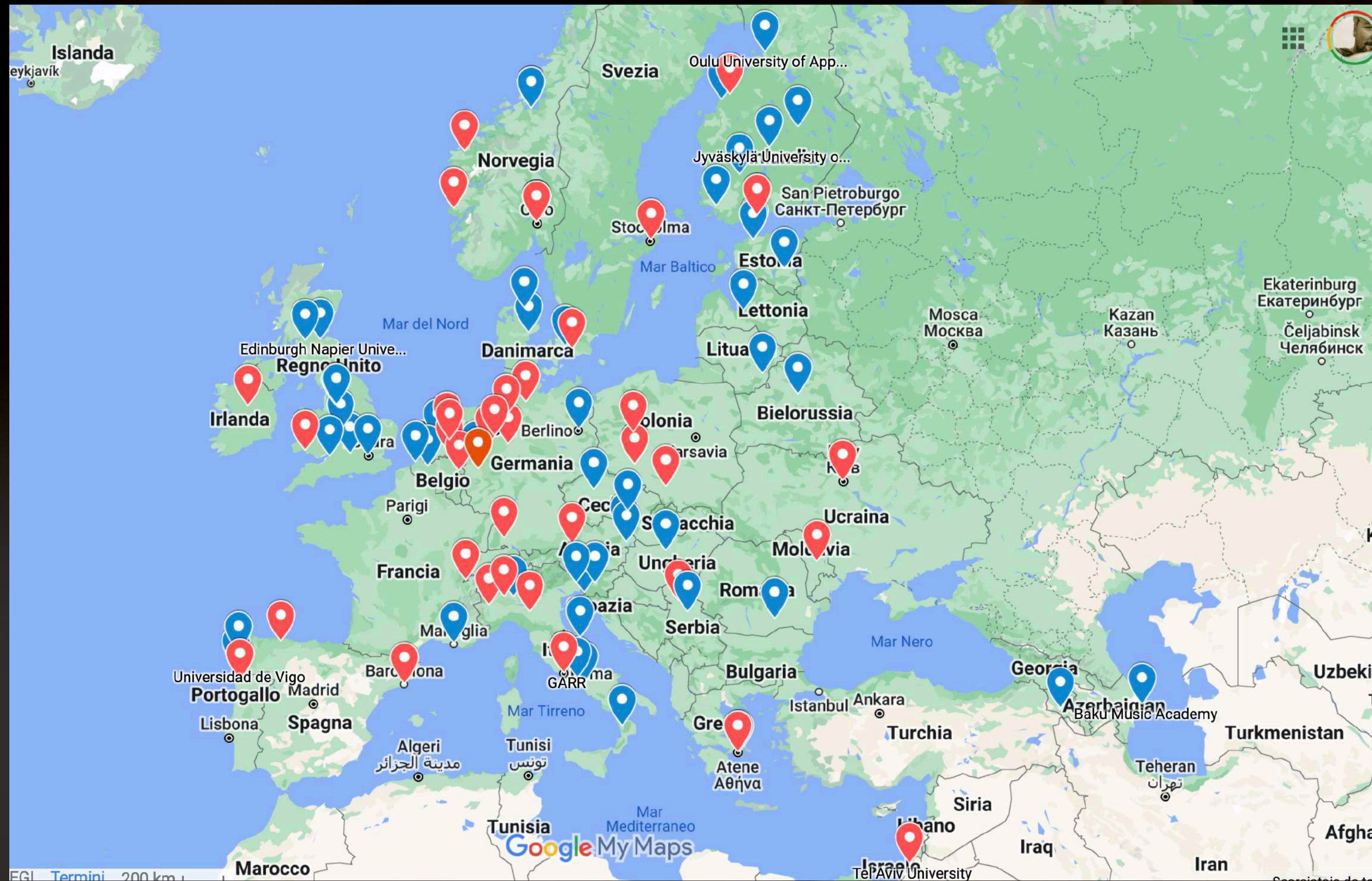
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**LoLa implementation process**

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### LoLa implementation process

Bureaucracy in the University world **TIME-TIME-TIME**



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### LoLa implementation process

**Bureaucracy in the University world TIME-TIME-TIME**

**Getting the IT and technical stuff on the boat**

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### **LoLa implementation process**

**Bureaucracy in the University world TIME-TIME-TIME**

**Getting the IT and technical stuff on the boat**

**HR & Management issues**

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## LoLa implementation process

**Bureaucracy in the University world TIME-TIME-TIME**

**Getting the IT and technical stuff on the boat**

**HR & Management issues**

**Firewall - Academic DMZ**

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### Industry Collaborations





### LOLA BETA TESTS 1 & 2

Artistic researchers Peter Spisky and Sara Wilén  
Technical leadership: Dragan Buvac

Sessions recorded on "side cameras" in Malmö  
Recorded material from the **Estonian Academy of Music and Theatre** and Sibelius Academy

#### **Qualitative methods**

- Artistic log notes during and after sessions
- Video analyses
- Interviews and recorded conversations

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### BETA TEST I - LOLA IN THE HOUSE

14 september 2023

**Malmö Academy of Music**

Peter Spissky, baroque violin teacher with two violin students

**Estonian Academy of Music and Theatre**

Meelis Orgse, baroque violin teacher with two violin students

Dragan Buvac, music production

Zakarias Lindhammar, technician

Sara Wilén, researcher/observer

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### LOLA IN THE HOUSE – REPERTOIRE AND VIDEOS

From Georg Philipp Telemann *Les Nations*

- Les Allemandes anciens
- Allemandes modernes

Jean-Féry Rebel *Les Caractères de la danse*

Malmö video

<https://www.youtube.com/watch?v=PIlrP5Faors>

Tallinn video

<https://www.youtube.com/watch?v=50jvmr8Qpbl>



### LOLA IN THE HOUSE – TAKE AWAYS

- **Positions of the microphones**
  - Static microphones affect the musical dynamics
- **Combining live musicians in the room with a sound via speakers**
  - Acoustics in Malmö
  - Acoustics in Tallinn
  - “Digital” acoustics
- **Benefit of doubt for “not-togetherness”: technical or musical issue?**
- **The visual cues between the two groups**
  - Audio well coordinated – the visual slightly delayed

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### BETA TEST 2 – PLAYING WITH LOLA

4 October 2023

#### **Malmö Academy of Music**

Sara Wilén, mezzo soprano

Jonatan Sersam, pianist

Dragan Buvac, music production

Zakarias Lindhammar, technician

#### **Sibelius Academy**

Mia Heikkinen, soprano

Keijo Lahtinen, technician

**Difference from Beta test 1:**  
**Bigger screen**



### PLAYING WITH LOLA – OPERA IMPROVISATION

- Performers create music, words and action in the moment by using the concept of play
- Performers are inspired by musico-dramatic idioms and performative traditions from Western classical and contemporary art music
- The musico-dramatic content is shaped through the live interaction
- No written music is used
- No music is repeated
- The audience suggests ideas for the content



### PLAYING WITH LOLA - FORM SET UP

#### **Mozart/early romantic style**

Recitativo

Duet

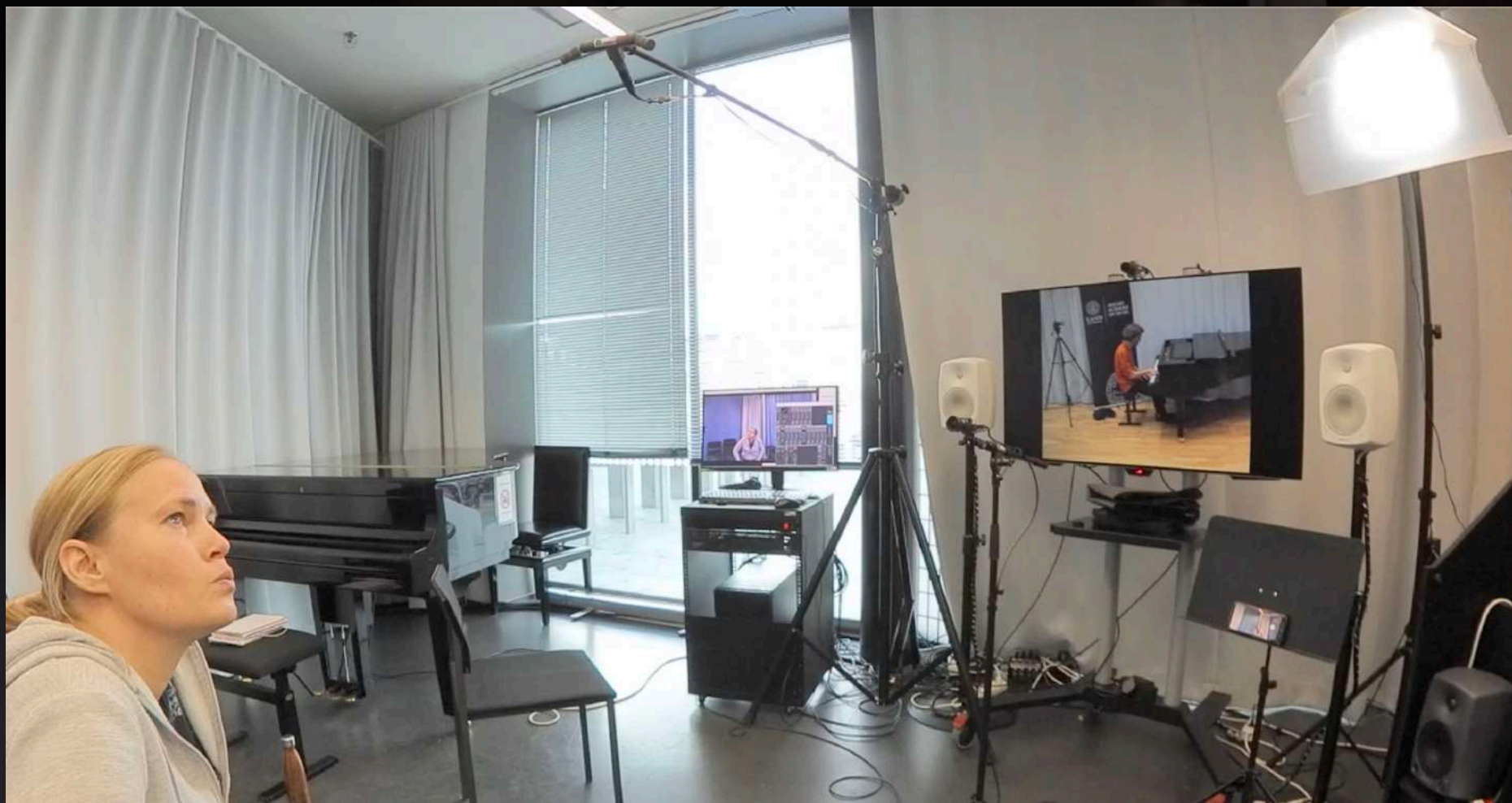
Aria

#### **Modern style**

Aria

Duet

Video: <https://youtu.be/3FaTtfFDYcs>





### PLAYING WITH LOLA – TAKE AWAYS

- **Positions of the microphone, screen and camera**
- **Combining live musicians in the room with a sound via speakers**
- **The visual cues between the two groups**



### ARTISTIC RESEARCH ISSUES

- How can LOLA be able to provide a sufficient substitute to the “in-person” direct musical communication?
- Which technological qualities could make the LoLa-performers experience that they are in the same room?
- Which technological qualities are vital to LoLa- performers of a specific performative stage set up\* or musical genre in their artistic work?
- \* concert, staged repertoire/improvisation performance





### ARTISTIC/PEDAGOGICAL IMPLICATIONS

**Develop and share set up plans for the placing of**  
Microphones, speakers, screens, cameras

**Between academies (to compare, test and develop)**

**Designed for different performative stage set ups and genre**

**Pro-s and cons of streaming studio versus movable  
streaming set up**

**If it's a studio – for whom is it designed?**

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**Thank you !**