Consortium GARR | THE ITALIAN EDUCATION & RESEARCH NETWORK

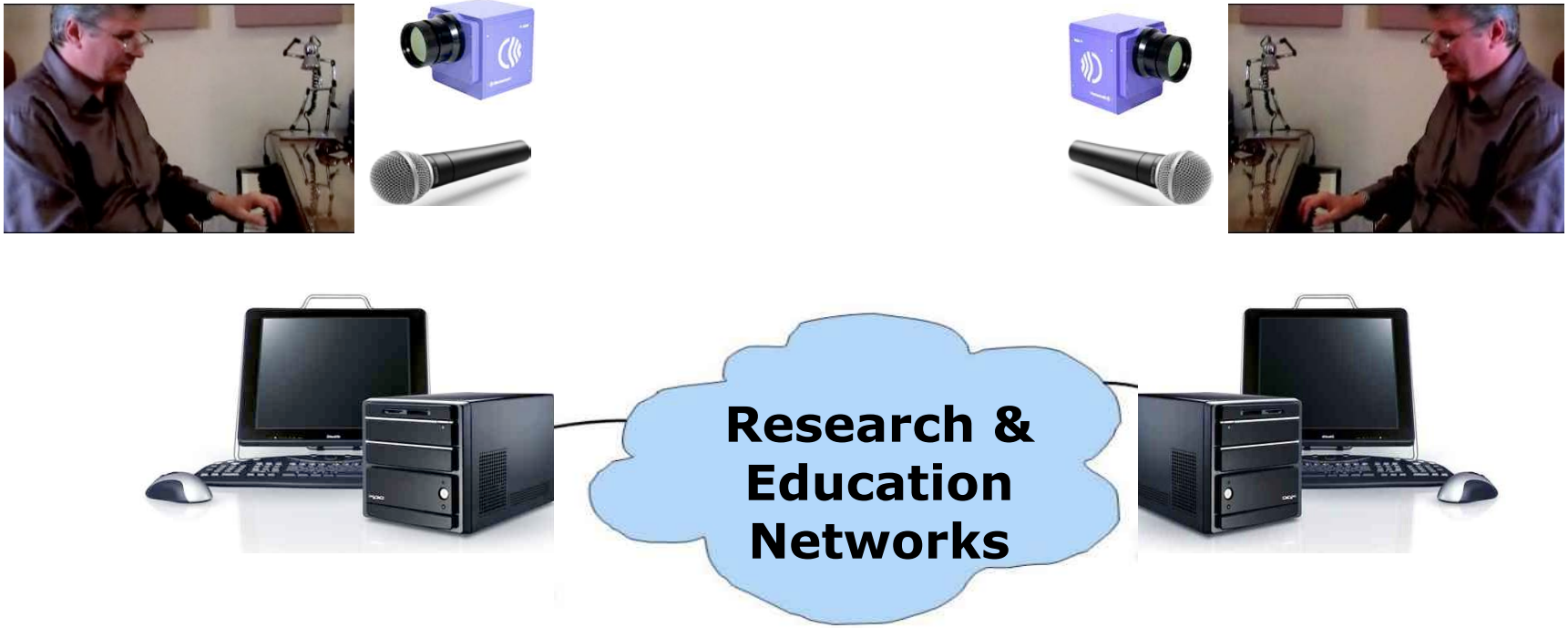
LoLa is going to SWING !

CLAUDIO ALLOCCHIO - GARR

Prague April 2° 2019

NPAPWS 2019

For a LoLa detailed technical overview



http://www.garr.tv/home/viewvideo/675/npap-workshop-lola-update-and-demonstration-callocchio

(NPAPWS 2013 @ MDW, Vienna)

LoLa system

Software

Hardware

Network

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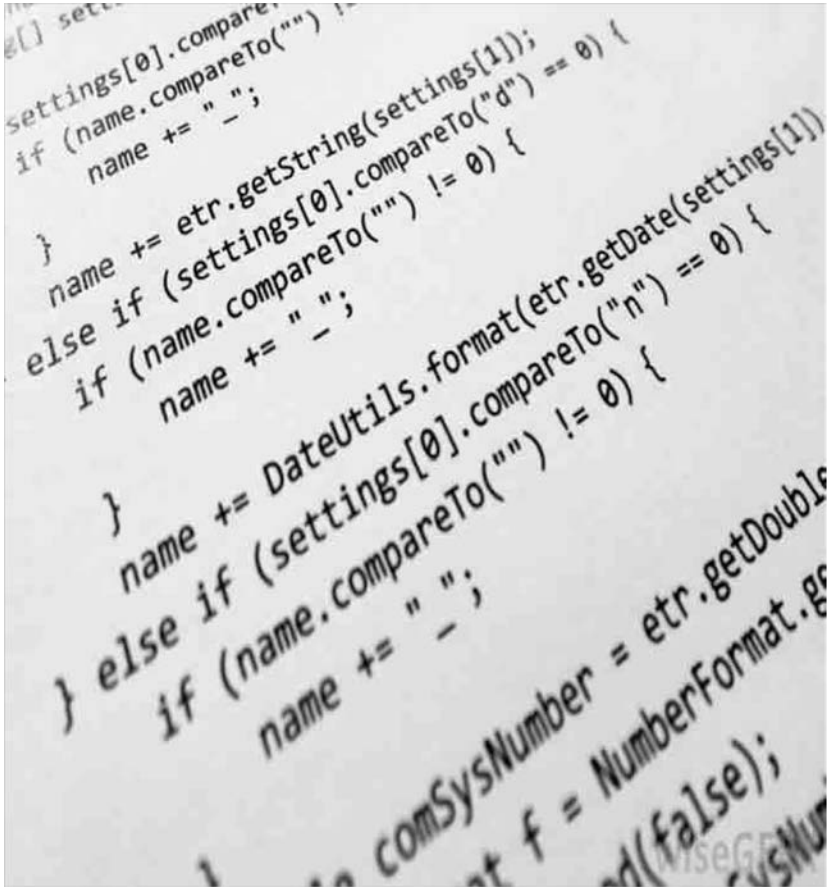
LoLa is: a good piece if s/w



- **Parallel computing**
- **Code optimization**
- **New Audio and Video processing techniques**
- **…**

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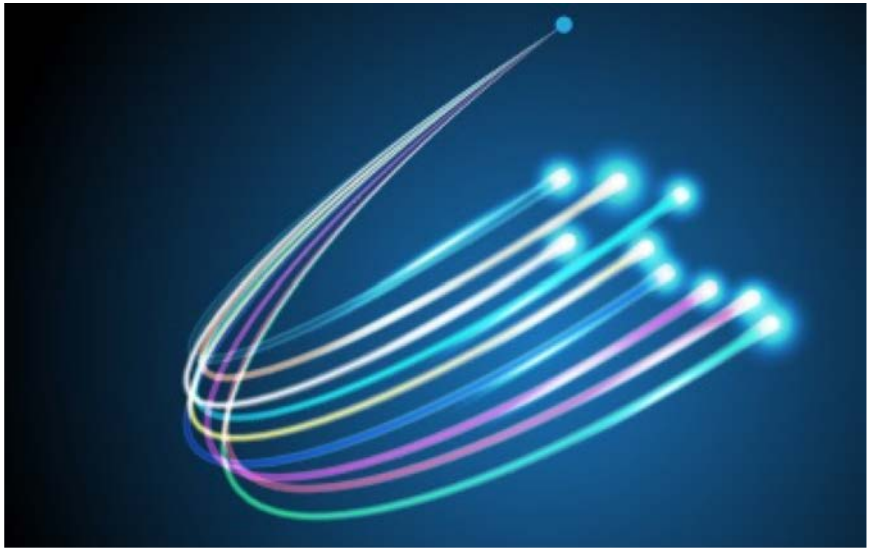
LoLa is: a good network



Research and Education networks are not everywhere and not for everyone.

(Many) commercial providers are way back from the required service level

Many LANs are obsolete or misconfigured

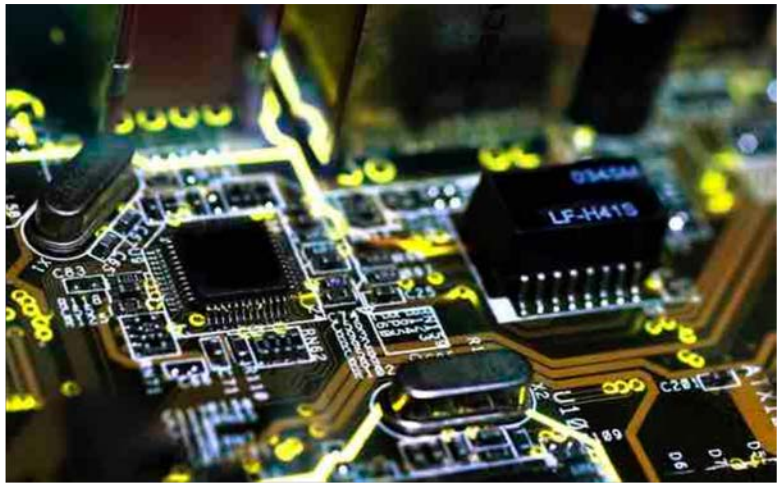
… but we enabled features to make less hi-level demand on network

… and Smart "symmetric" GIG-City services are appearing!

30Mbps → 1Gbps → 10Gbps

LoLa what about 5G?

LoLa is: a good piece if h/w



You still need to put together a few pieces of technology:

- **A good gaming PC**
- **Audio and video cards/gear**
- **Tune a bit the system**

We already have a few "out of the box" suppliers for a ready "LoLa Box"

Some laptops are very promising!

We know something better now

We understand enough what it means to play/act/teach together at TWO distant locations

We know that users also dare the impossible

You cannot play across the ocean!

We have https://lola.conts.it

We have LoLa 2.0 ready to release

"We play in 3 sites" (still a lot to learn!)

We know that a good Laptop

1 piece of this

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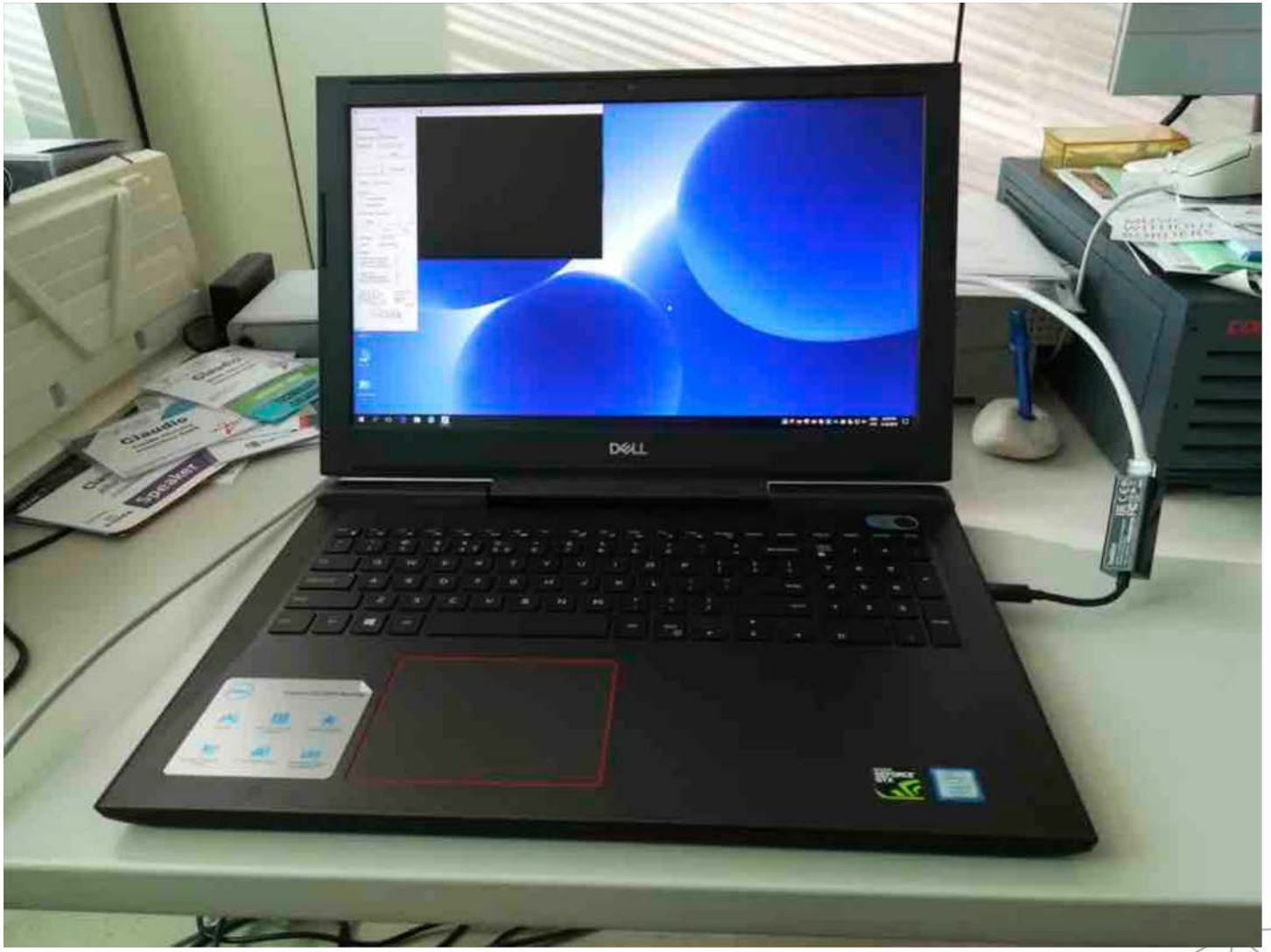
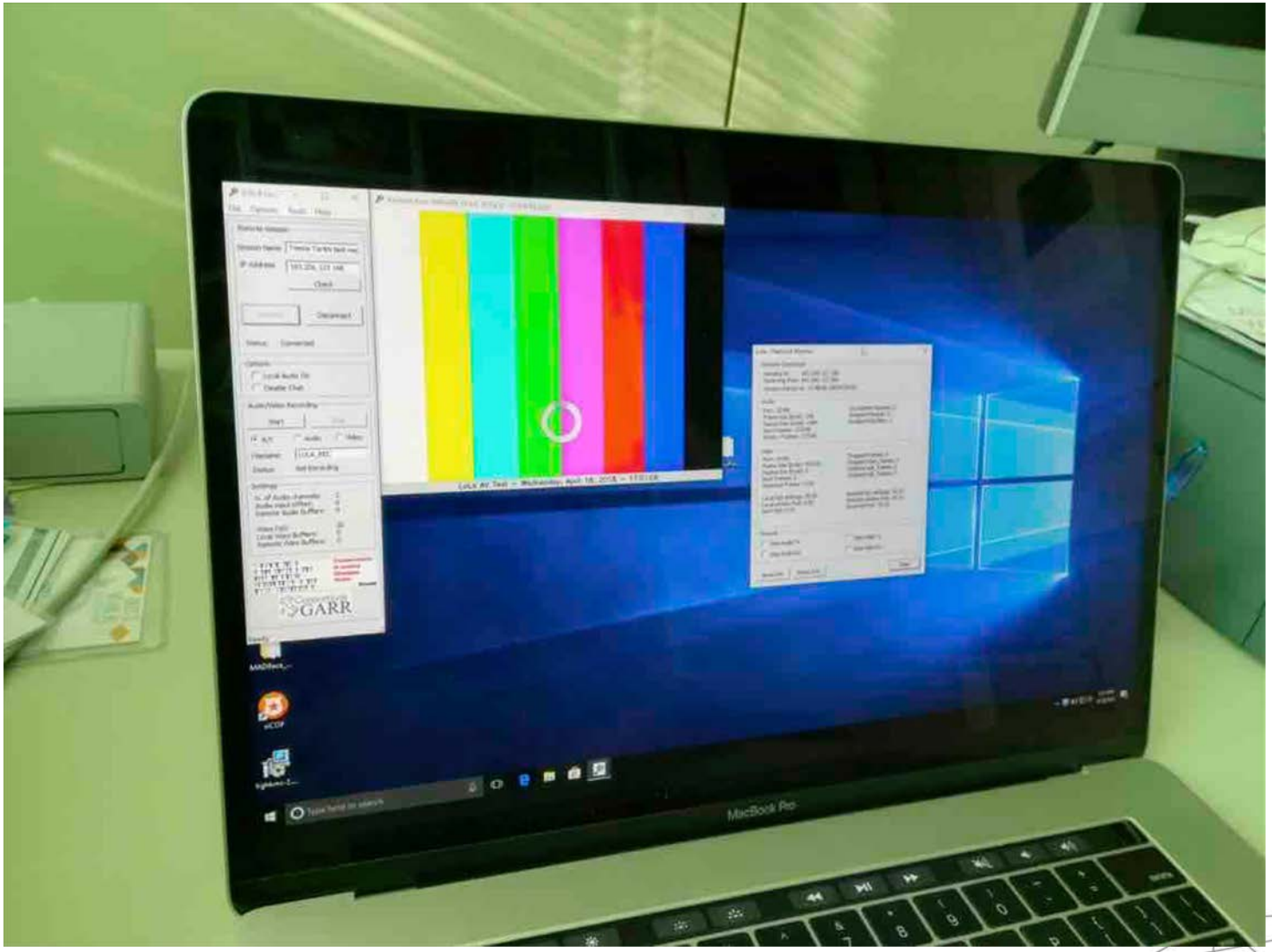
Maybe 1 piece of this for a good 1G card

Or maybe 1 piece of this for a 10G card

Make this!



But also this!



LoLa on laptops

- **DELL Inspiron gaming 15 7000 late 2017 (i7 4core)**
- **MacBook pro late 2016**
- **DELL Insipron gaming 15 5587 late 2018 (i7 6core)**

- ***A good external audio interface (possibly RME UFX series) with sampling down to 32***
- ***The usual USB3 camera***
- ***Maybe an external USB3/thuderbolt network card (but DELL 5587 has a good 1G internal card!)***

- ***And you are done for quick easy (and portable) setups***

- ***…or even "home" setups***

- ***NOT a replacement for "server class" setups but an easy entry level chance…***

- ***And if you do not go for music… ASIO4ALL with do further magic: use internal laptop audio.***

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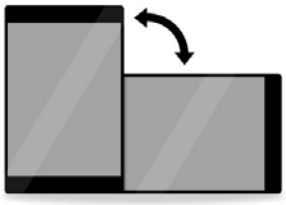
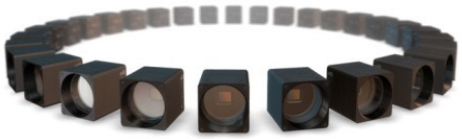
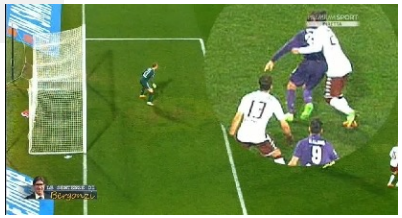
2500 years in a clip…

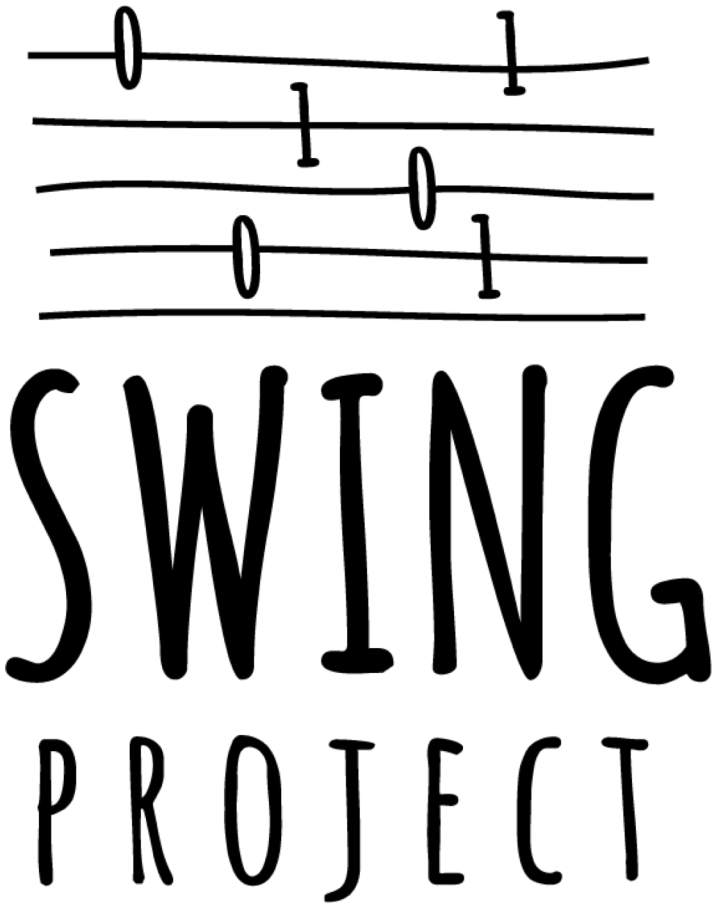
Already in the pot…

- Multiple cameras (multi-view points and PIP)
- Replay on the fly and digital zoom in/out (AOI)
- Portrait and landscape video mode
- Immersive sound – spatialization, ambisonic support
- Support for third-party plugins
- Sensors support



But can we make LoLa SWING?



What is it?

SWING

http://www.swing-project.eu

Synergic Work Incoming New Goals for Higher Education Music Institutions (ERASMUS+)

Project Duration: from September 1° 2018 until August 31° 2021

Partners

Consortium GARR - Italy

Conservatorio di Musica G. Tartini Trieste – Italy

Universitaet fuer Musik und Dartellende Kunst Wien – Austria

Akademia za Glasbo Univerza v Ljulijani - Slovenia

Association Europeenne des Conservatoires, Academies de Musique et Musikhochschulene – Belgium

… and other associates (Cons. Milan, Milan Polytechnic, RDAM, ARNES)

The goals

- to **create a new professional profile**: the **technology friendly master level music teacher**
- creation of a set of **new learning prototype modules** which use a **mix of local and remote education**
- development of a **deeper transnational collaboration**, which should compare, harmonize, fine tune e deploy joint activities resulting in a **higher quality joint curricula**.
- **enhanced quality of the international mobility** model for students and teachers, **supplementing the physical mobility with a continuous virtual one**
- **enhancement of distance learning technology** platform (LoLa), uniquely **tailored to teachers and students** needs
- a more **homogeneous PhD level Higher Education** path among different education institutions in different countries

How to SWING?

- A lot of real teaching sessions with many different instruments and situations, embedding LoLa into usual life of teachers and students
- **Collect feedback, discuss it, and try to turn it into new technology features.**
- **Then try it again, and see how it works!**

In just 3 weeks…

- We want to see from different viewpoints!
- A better support for voice while talking
- We want to see and annotate scores in the screen
- Eye contact also with teacher, not only with other musicians
- Bigger, or more video screens
- Soud dynamics must improuve for some instruments
- Better guidance on microphone positioning
- Singers and different, they want more ambience sound!
- Singers need to act, to they need to move, and support for this is still too little
- How I would like also to touch YOUR instrument some times!
- …

More on SWING

http://www.swing-project.eu

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Questions?

https://lola.conts.it

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