



# RAVENNA 2020 Webinar Series

## Products & Applications: punQtum's Digital Intercom System

Tue, July 21, 2020  
15:00 h (CEST)

Arie van den Broek  
punQtum





**Arie van den Broek, CEO, punQtum**

- Arie has a background as a musician and sound engineer
- ProAudio veteran with a track record in the development of networked audio technologies
- As member of the AES, he helped develop AES67
- Driving force in democratizing sound using open standard technology



**PUNQTUM**

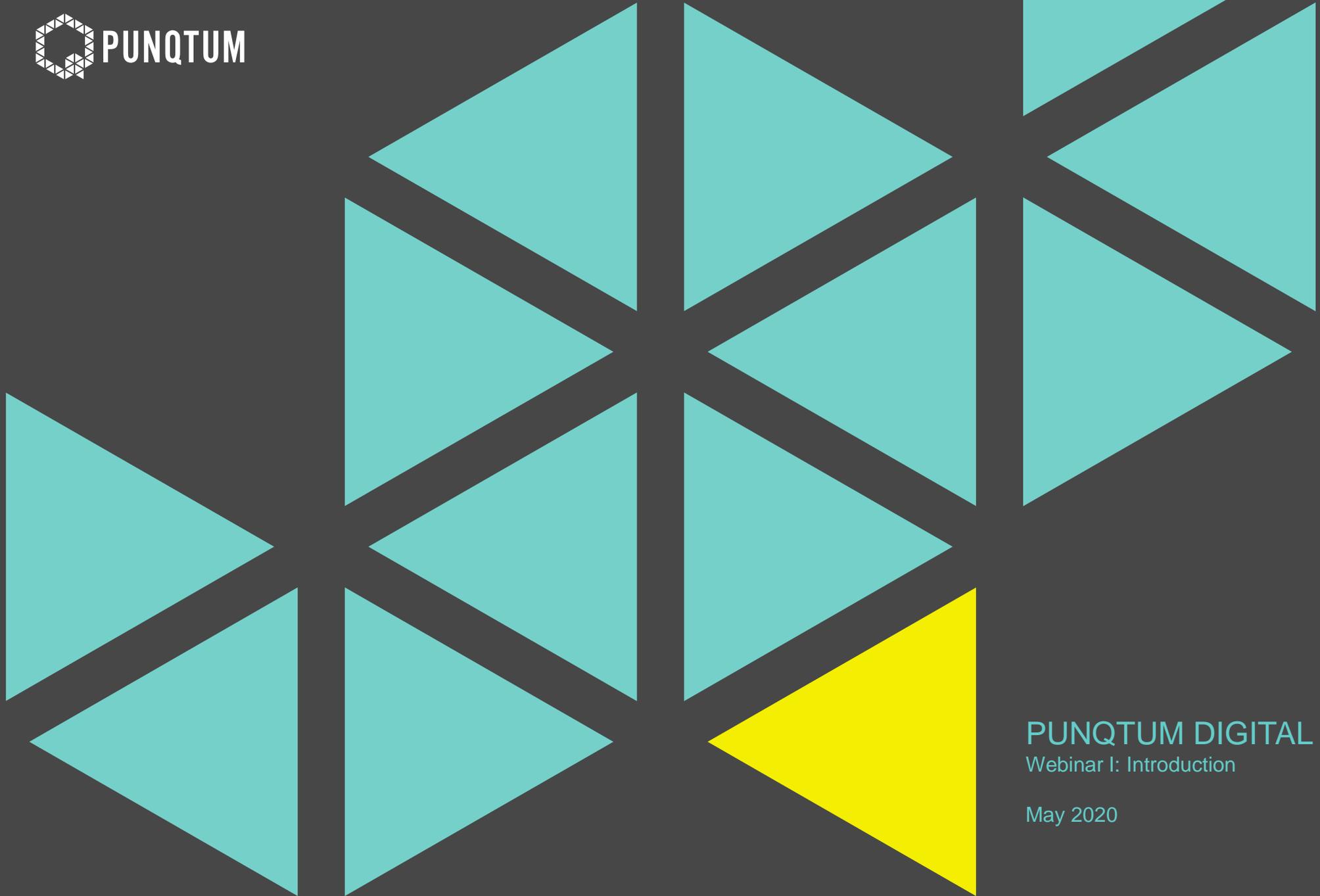
**punQtum, Soest, The Netherlands**

- Established 2019
- Office in Switzerland & Germany
- AES67-compatible digital intercom systems
- RAVENNA partner since 2019



**PUNQTUM**

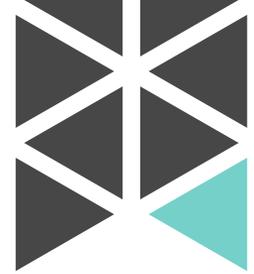




# PUNQTUM DIGITAL INTERCOM

Webinar I: Introduction

May 2020



# WHAT WE DO

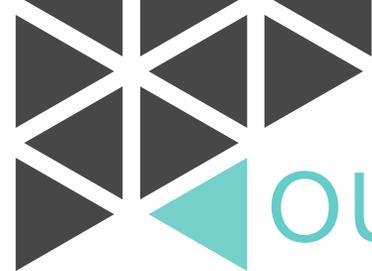
We offer a **network-based** digital intercom system

- ▶ ...that is **easy to use**
- ▶ ...that works **from small to elaborate** team communication systems
- ▶ ...that gives you **all the benefits** of digital technology
- ▶ ...but is **affordable**
- ▶ ...that helps you to further **professionalize** your gig





PUNQUM



# OUR TECHNOLOGY STANDARDS



® AES67



**RAVENNA**

AES67 & ST 2110 built-in

**Q-LAN**

**AES67  
Livewire+**



Now with AES67

**Dante™**





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# START SMALL

Sound Operator



Lighting



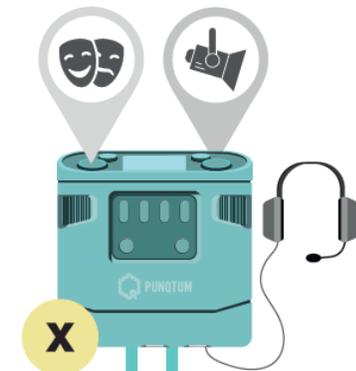
Sound Operator



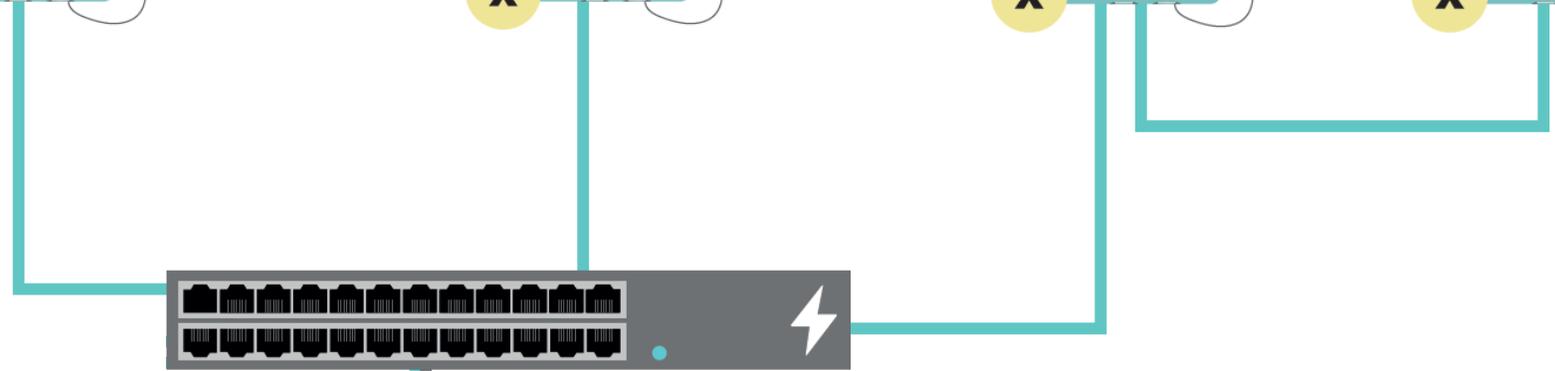
Lighting



Followspot 1

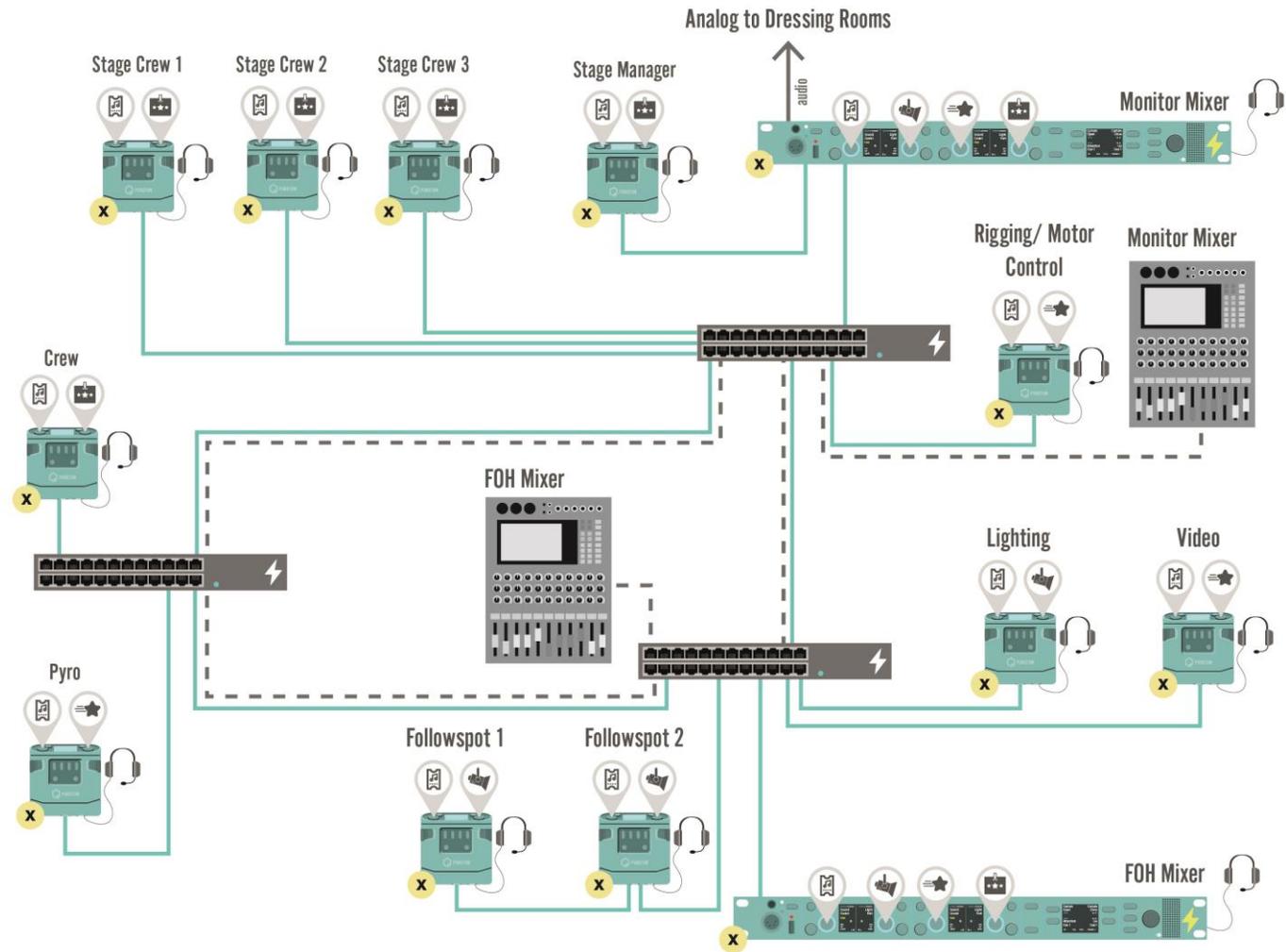


Followspot 2





# ...WITH YOUR NEEDS



## Key

- ... Audio Feed DANTE™
- Audio Feed Analog
- Audio Feed AES67
- Intercom Feed AES67
- x Program Feed (1 - 8)
- ⚡ Power Over Ethernet



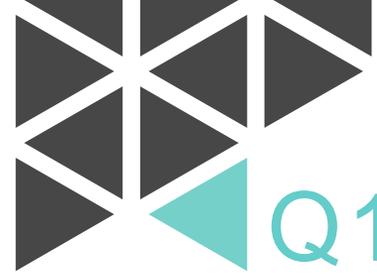


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# WHY PUNQTUM DIGITAL INTERCOM

- ▶ Up to 32 partylines (**interference-free**)
- ▶ **Unlimited number of devices** per system
- ▶ **Unlimited systems** in a network
- ▶ **No mandatory masterstation**
- ▶ **Replay function** for repeating of announcements
- ▶ **Freely configurable**, PIN protection for network and role access





# Q110 – BELTPACK

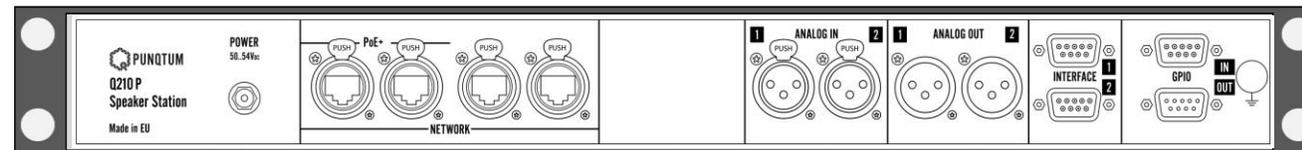


PUNQTUM



# Q210 P – SPEAKER STATION

- ▶ 4 + 4 CH partylines
- ▶ 4 programmable buttons
- ▶ Built in PoE switch
- ▶ 2 analog audio I/O
- ▶ 2 interface ports & 4 GPI/O
- ▶ Replay function
- ▶ Comms recording
- ▶ PA and “Talk to Many”
- ▶ Program feeds from analog or via AES67 from RAVENNA & Dante networks
- ▶ Public address to analog output or via AES67 to RAVENNA & Dante networks





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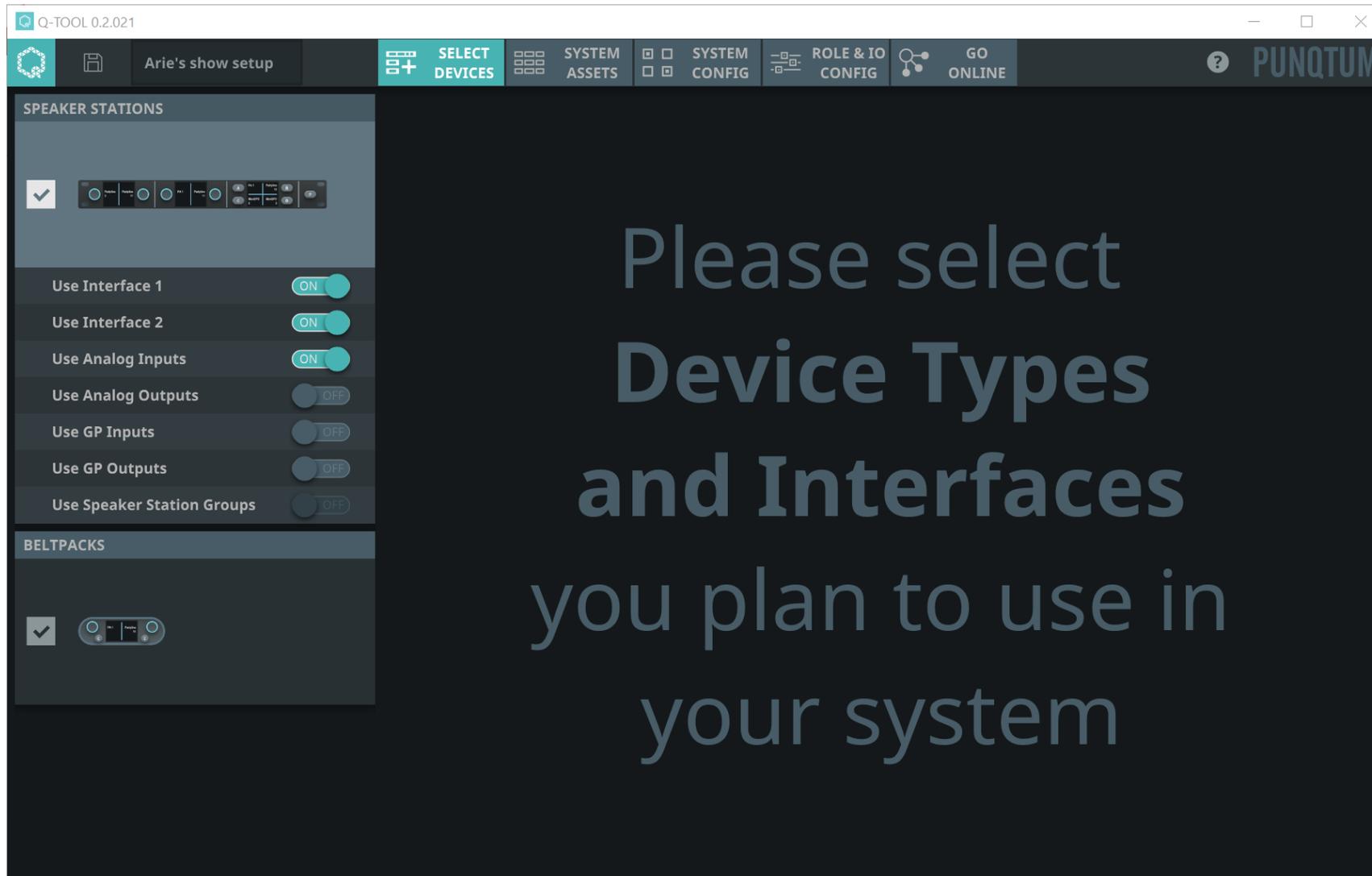
## Part II

### **Live Demonstration**

(see live recording of webinar)



# Q-TOOL (QUICK OVERVIEW)



Q-TOOL 0.2.021

Arie's show setup

SELECT DEVICES

SYSTEM ASSETS

SYSTEM CONFIG

ROLE & IO CONFIG

GO ONLINE

PUNQTUM

**SPEAKER STATIONS**

[Device Icon]

Use Interface 1  ON

Use Interface 2  ON

Use Analog Inputs  ON

Use Analog Outputs  OFF

Use GP Inputs  OFF

Use GP Outputs  OFF

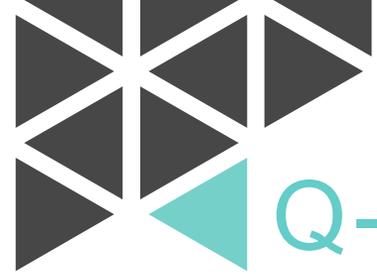
Use Speaker Station Groups  OFF

**BELTPACKS**

[Device Icon]

Please select  
**Device Types**  
and **Interfaces**  
you plan to use in  
your system





# Q-TOOL (QUICK OVERVIEW)

Q-TOOL 0.2.021

Arie's show setup

SELECT DEVICES SYSTEM ASSETS SYSTEM CONFIG ROLE & IO CONFIG GO ONLINE PUNQTUM

ASSETS	Arie's show setup - ASSETS	
+ Partylines 5	Sound	Light
+ Program Sources 2	pyro	security
+ Public Address 1	Stage 2	
+ Talk To Many 1	mainstage	2nd Stage
	PA 1	
	TTM 1	





# Q-TOOL (QUICK OVERVIEW)

The screenshot displays the Q-TOOL 0.2.021 interface. The top navigation bar includes a home icon, a save icon, the user name 'Arie's show setup', and menu options: 'SELECT DEVICES', 'SYSTEM ASSETS', 'SYSTEM CONFIG', 'ROLE & IO CONFIG', and 'GO ONLINE'. A 'PUNQTUM' logo is in the top right corner.

The main interface is divided into two columns. The left column contains three sections: 'DEVICE ROLES' with 'Speaker Stations' (2) and 'Beltpacks' (3); 'DEVICE I/O SETTINGS' with 'Speaker Stations' (0) and 'Beltpacks' (1); and 'ADMIN ROLE' with 'SETTINGS' and 'KEY SETS' tabs. The right column shows the 'ADMIN ROLE' configuration for a 'SpeakerStation', including settings for 'Lock Frontpanel', 'Lock Frontpanel PIN', 'User can change Role', 'User can change Mic Settings', 'User can change Program Source', 'User can change Display Settings', 'User can change I/O Settings', 'Display Brightness', 'Dark Screen Saver', 'Program Source', 'IFB DIM', 'Default Role', and 'Role Priority'.

Section	Item	Count
DEVICE ROLES	Speaker Stations	2
	Beltpacks	3
DEVICE I/O SETTINGS	Speaker Stations	0
	Beltpacks	1

Setting	Value
Lock Frontpanel	OFF
Lock Frontpanel PIN	0 0 0 0
User can change Role	ON
User can change Mic Settings	ON
User can change Program Source	ON
User can change Display Settings	ON
User can change I/O Settings	ON
Display Brightness	MEDIUM
Dark Screen Saver	OFF
Program Source	mainstage
IFB DIM	-12 dB
Default Role	ON
Role Priority	MEDIUM





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## Part III

# Competition / Positioning



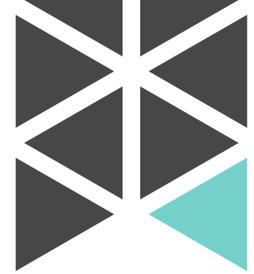


# PUNQTUM GOALS

In any configuration punQtum

- 1) offers the **best feature set** for the price
- 2) provides an **unbeatable** alternative to analog systems
- 3) offers the **most affordable** alternative to competing digital intercom systems





# WHAT DOES IT COST?



## Q110 - Beltpack

2 channels,  
PoE powered,  
daisy-chainable

599 €



## Q210 P - Speaker Station

4+4 CH speaker station with built in PoE switch,  
2 analog IN/OUT,  
2 interfaces and GPIO

1,699 €

\* Accessories (e.g. Headsets and Gooseneck mic) are available from the webstore





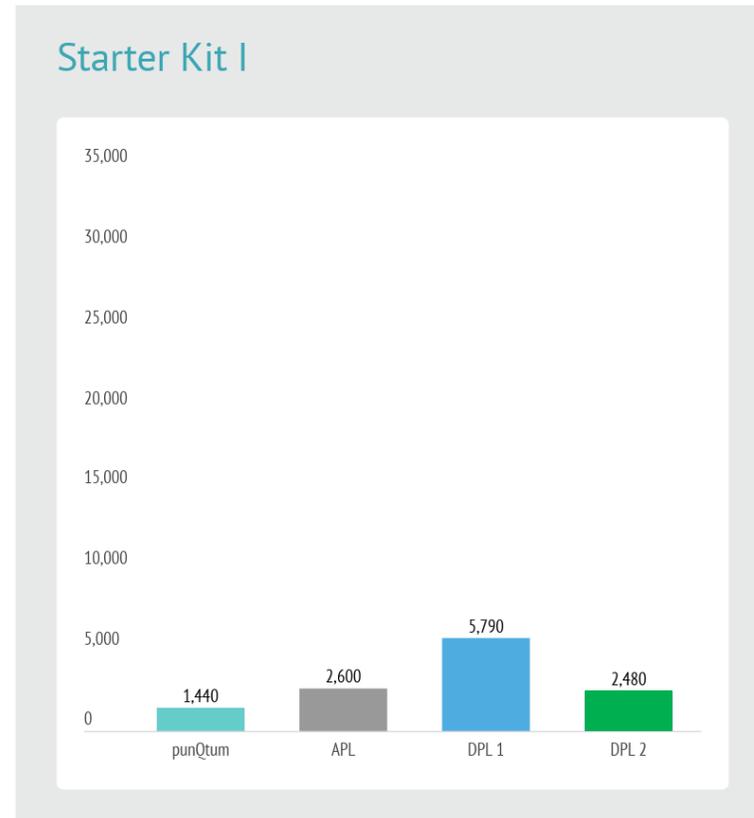
DID WE SUCCEED?

**Let's compare system costs**





# MOST BASIC STARTER KIT



2 beltpacks + PoE switch

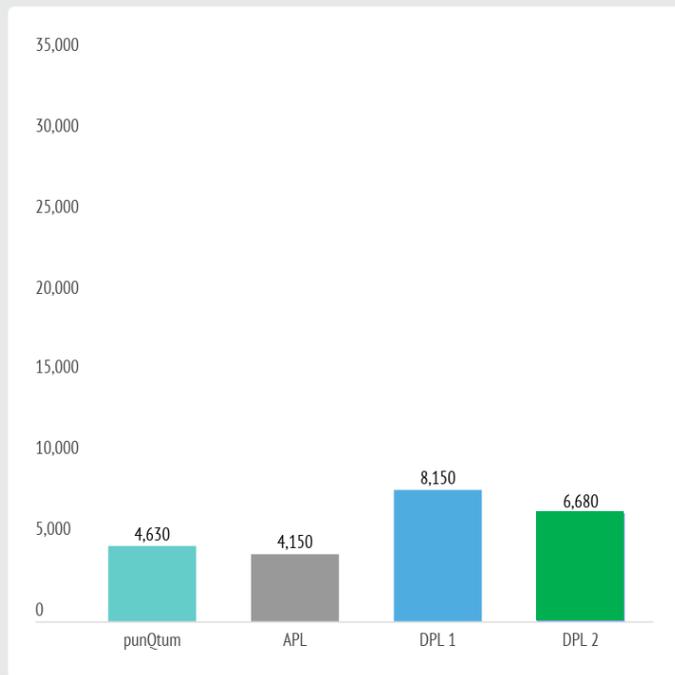
In **comparison to analog**, at comparable cost, punQtum gives users **many more features and benefits.**





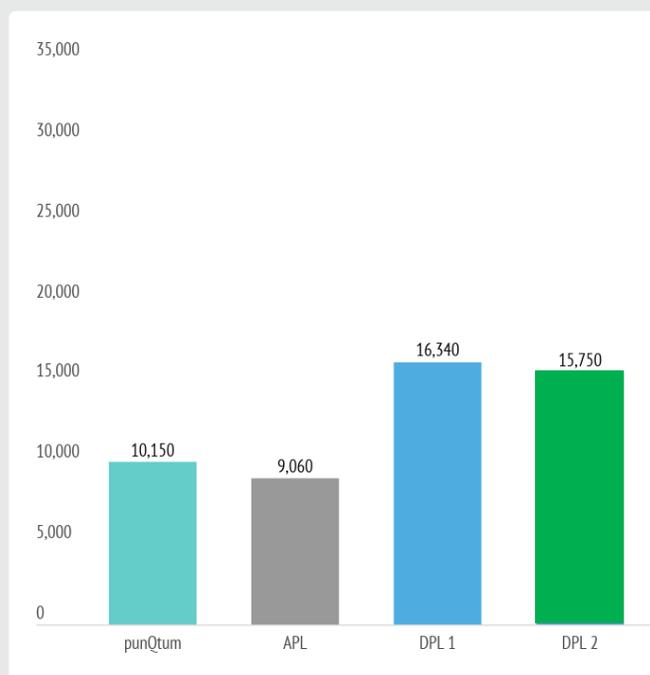
# LIVE EVENTS SYSTEMS

### Entry System I



1 masterstation + 4 beltpacks

### Entry System II



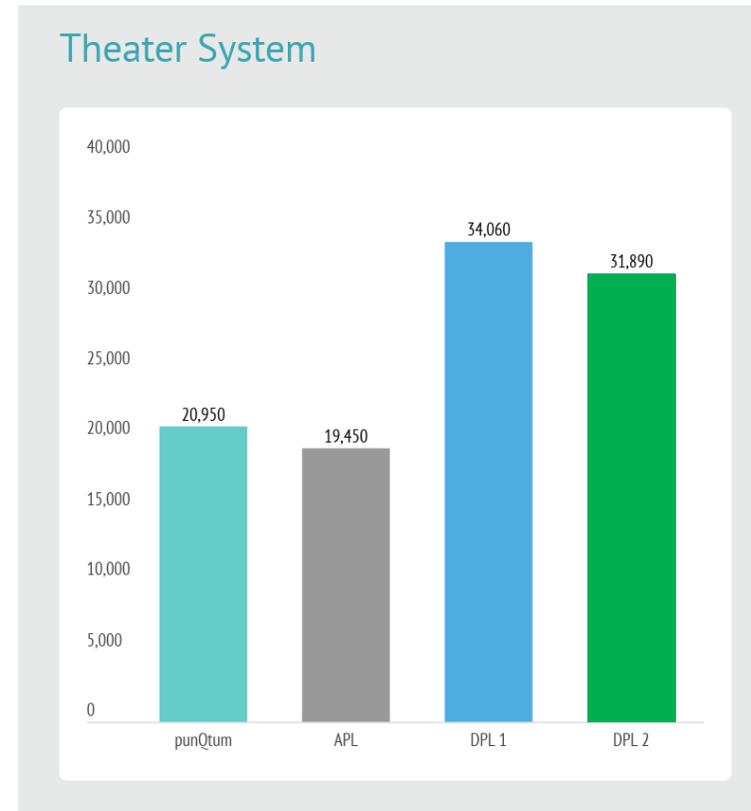
2 masterstations + 12 beltpacks

In **comparison to analog**, at comparable cost, punQtum gives users **many more features and benefits.**





# THEATER SYSTEM



In **comparison to analog**, at comparable cost, punQtum gives users **many more features and benefits.**

2 masterstations, 3 remote stations,  
18 beltpacks, 2 line isolators,  
5 intercom line splitters





# PUNQTUM

See you soon!

Any time at



# Questions?



# More answers...



**RAVENNA / AES67 / SMPTE ST 2110 Resources:**



[www.ravenna-network.com/resources](http://www.ravenna-network.com/resources)



You've made it!



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CELEBRATING 10 YEARS  
**RAVENNA**  
AES67 & ST 2110 built-in

[www.ravenna-network.com](http://www.ravenna-network.com)

