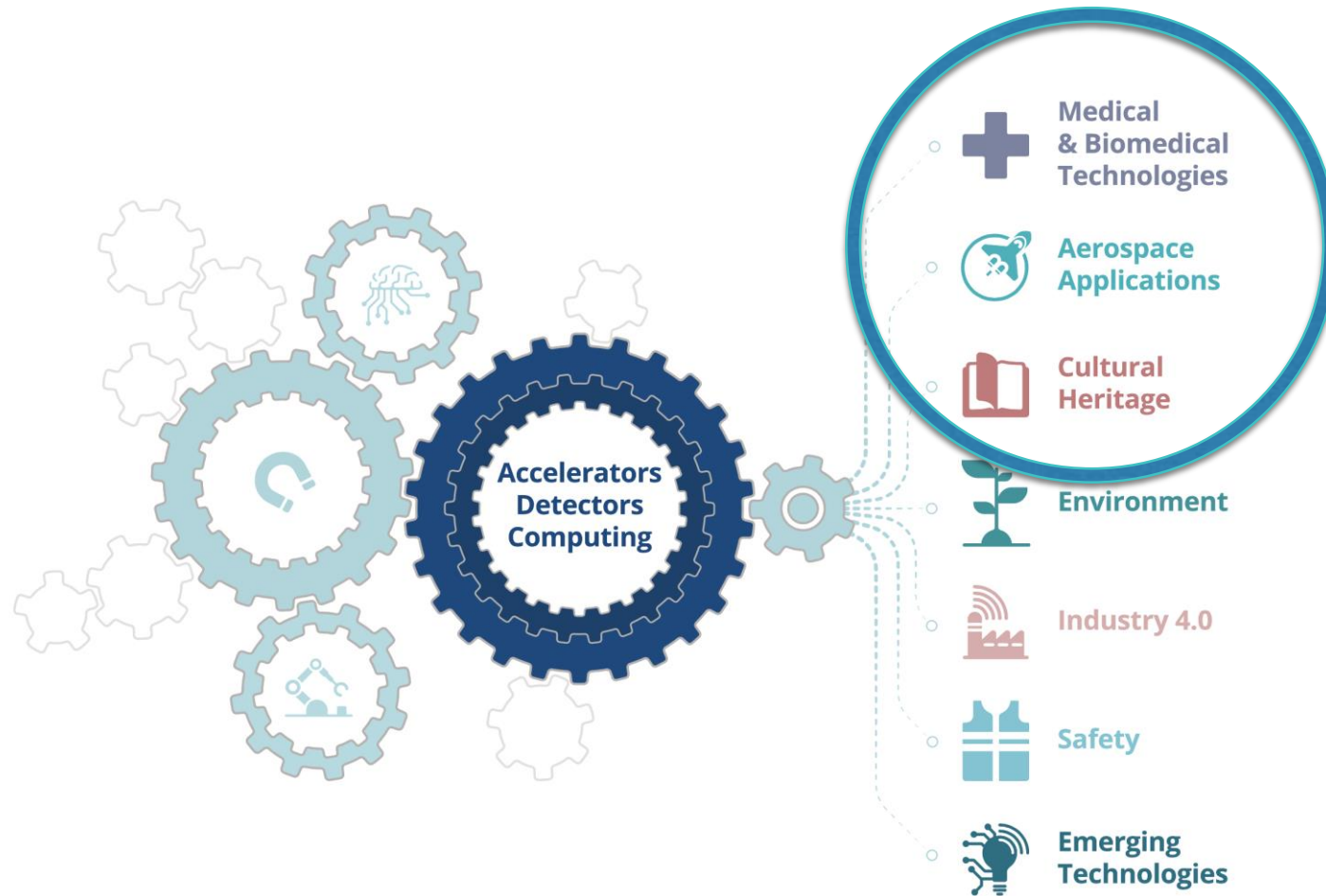




# Turning technology into applications & how IPPOG and CERN KT can collaborate

**Marzena Lapka | CERN Knowledge Transfer group**  
IPPOG Benefits to Society WG, 5.02.2021

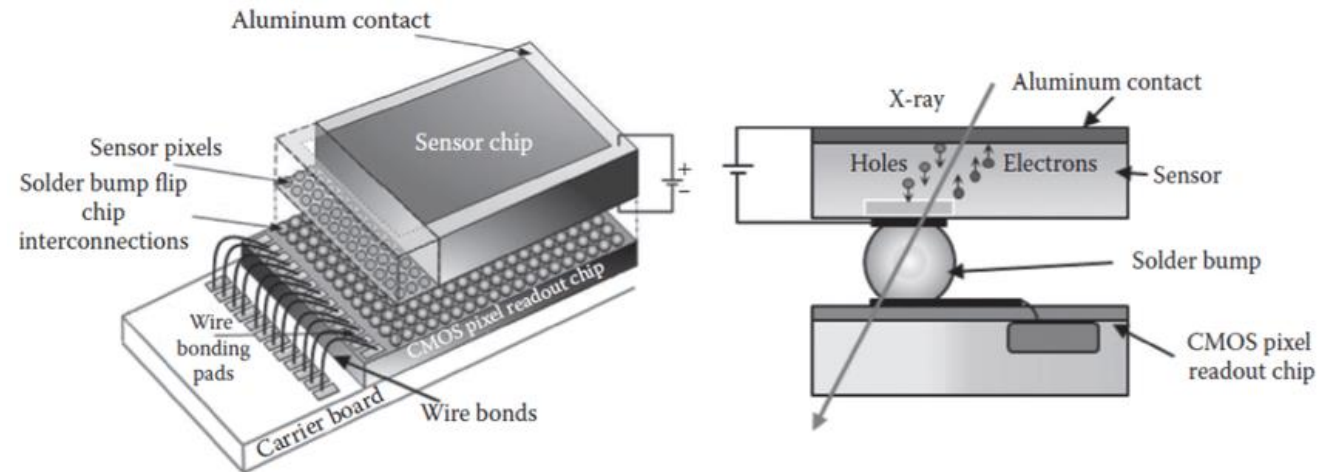
# From CERN Technologies...



... to Society

# A family of pixel detector read-out chips

- A family of pixel detector read-out chips for particle imaging and detection developed by the Medipix Collaborations
- Like a camera having access to spectroscopic information opens a new dimension in X-ray imaging



# Medical Applications

## Mars Bioimaging

First 3D colour X-ray  
of a human using  
CERN technology

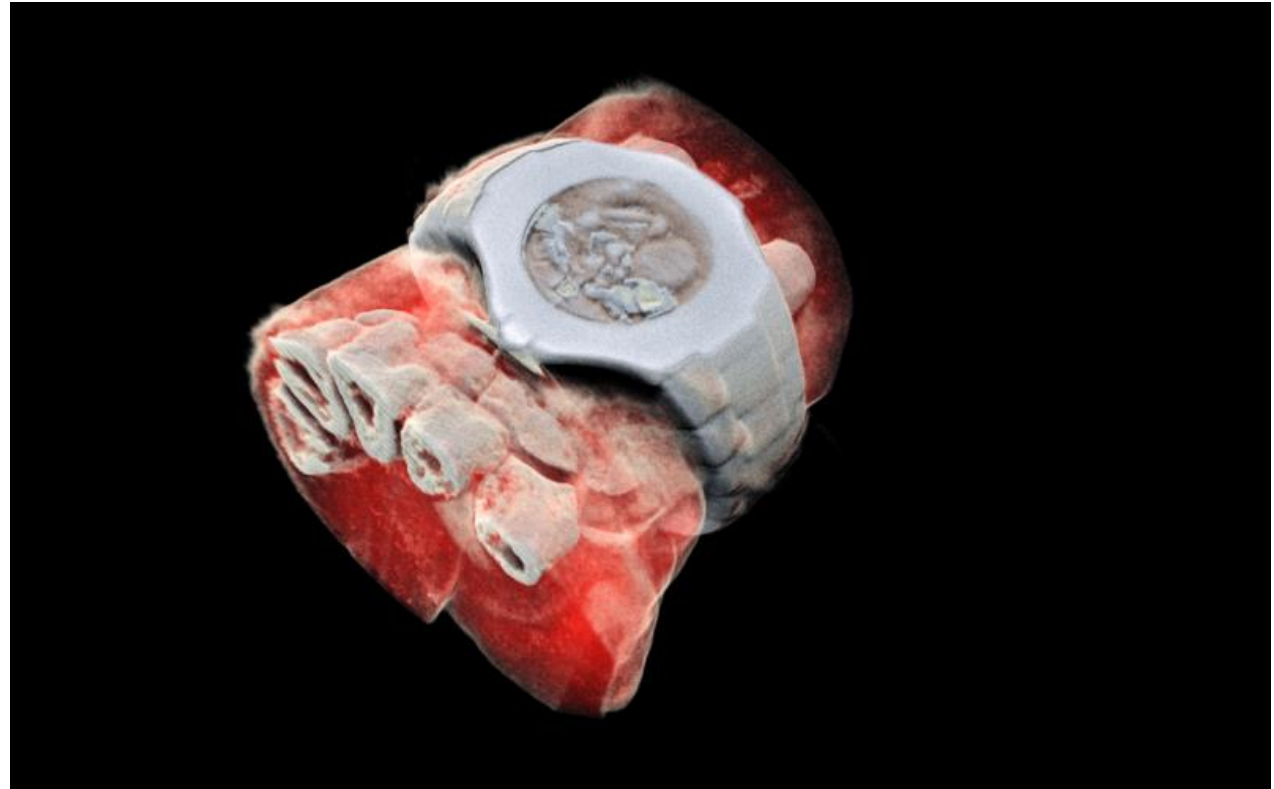


Image: Mars Bioimaging

<https://www.nytimes.com/2018/07/17/health/3d-color-xrays-cern.html>

# Cultural Heritage

## InsightART

Measuring the DNA of your art

Timepix particle detectors help unravel the secret of a long-lost painting by the great Renaissance master, Raphael, The Madonna and Child

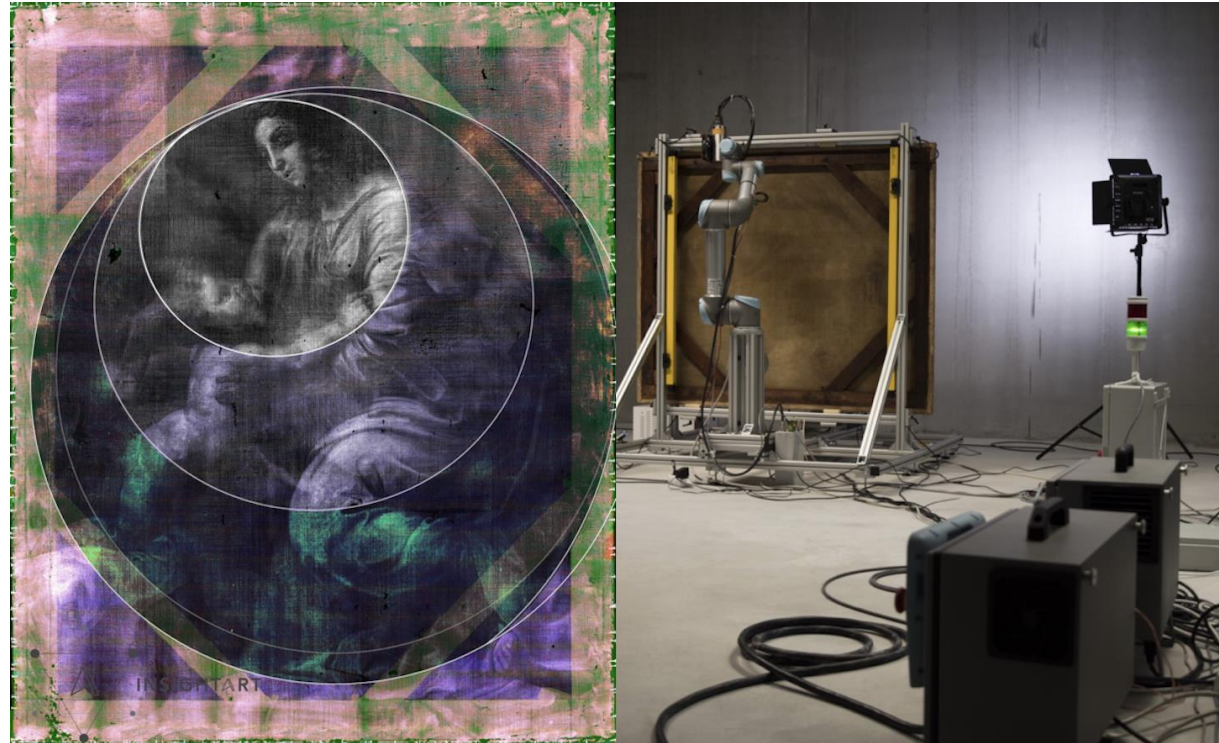


Image: InsightART

<https://www.praguemorning.cz/the-czech-cosmic-startup-that-helped-unveil-the-secrets-of-a-lost-raphael/>

# Aerospace Applications

**NASA**

Radiation monitoring in  
NASA's Orion vehicle  
and at the International  
Space Station



Image: NASA

<https://www.nasa.gov/feature/nasa-cern-timepix-technology-advances-miniaturized-radiation-detection>

# How IPPOG and CERN KT can collaborate?



IMPACT

# Social Media



**CERN**  
188,379 followers  
1mo · 🌐

Today is **#CivilAviationDay!**  
Did you know that **#CERNKT** digital tools are **#AcceleratingInnovation** in aviation safety?  
ROOT can be used to collect and manage data to assist the pilots in improving their situational awareness during the flight.

Find out more: [https://lnkd.in/d\\_TQcvV](https://lnkd.in/d_TQcvV)

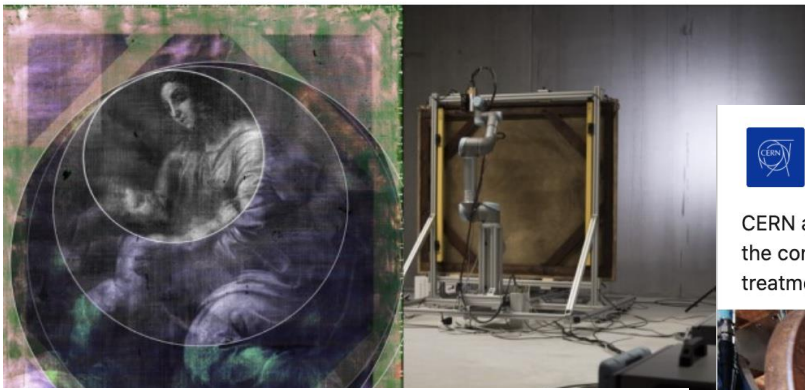
● **Did you know that physics tools developed at CERN are accelerating innovation in aviation safety?**  
#CERNKT #AcceleratingInnovation



kt • cern

**CERN** ✓  
Published by Loic Bomcern · 16 November 2020 · 🌐

The ArtTech Foundation gave its prize to Czech start-up InsightART and its innovative scanner using **#CERNKT** technology, Timepix. Capable of taking high-res X-ray images, this machine is **#AcceleratingInnovation** in artwork authentication.



**CERN**  
170,492 followers  
5d · Edited · 🌐

CERN and the CHUV | Lausanne university hospital are collaborating to develop the conceptual design of an innovative radiotherapy facility for cancer treatment. ...see more



CERN and Lausanne University Hospital collaborate on a pioneering new cancer radiotherapy facility

**CERN** ✓ @CERN · Apr 26, 2020

Today, it's **#WorldIPDay**. This year connecting innovation, and the Intellectual Property (IP) rights that support it, and the efforts to create a green future. Technologies developed at CERN advance the pursuit of building a better planet 🌍

#CERNKT → [kt.cern/article/techno...](https://kt.cern/article/techno...)

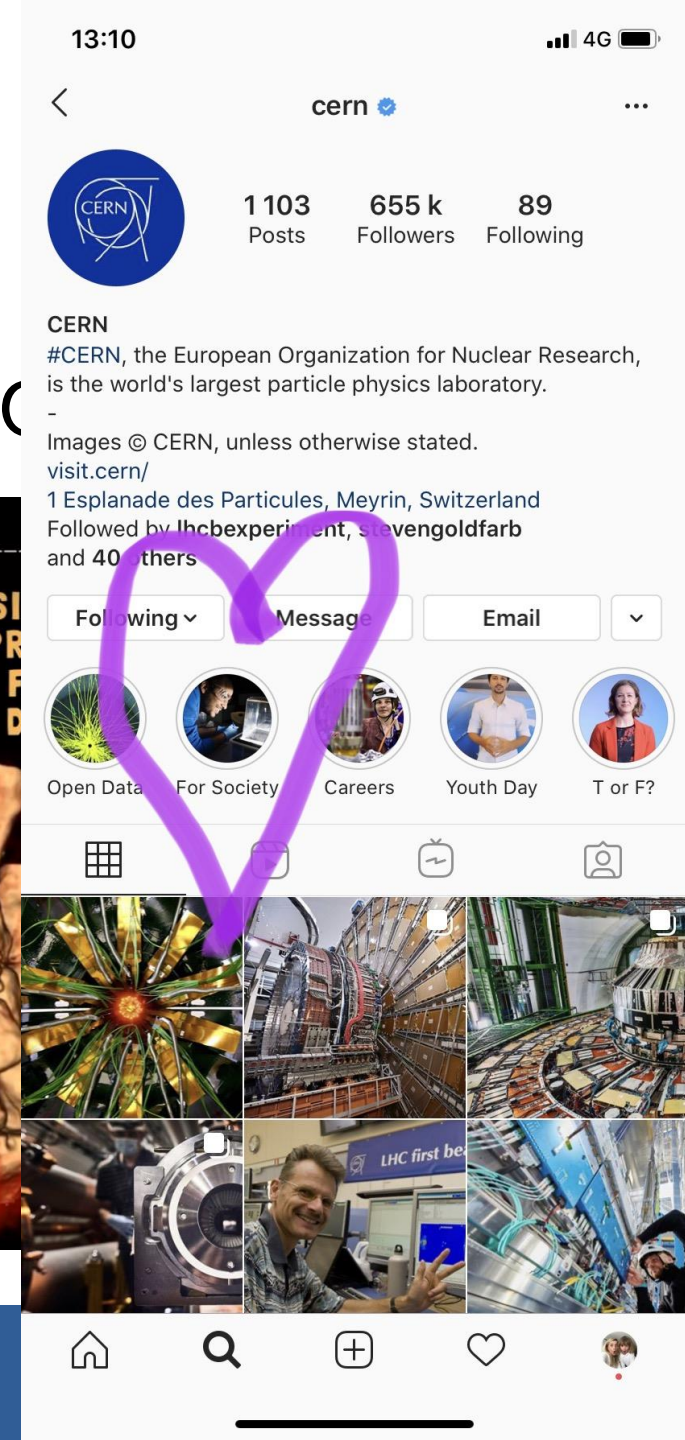
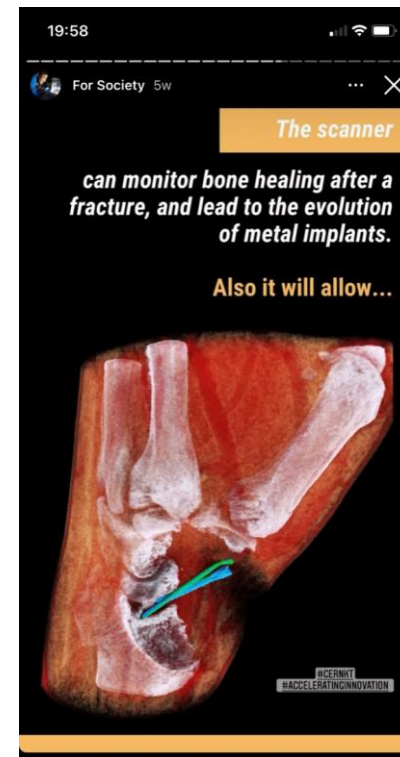
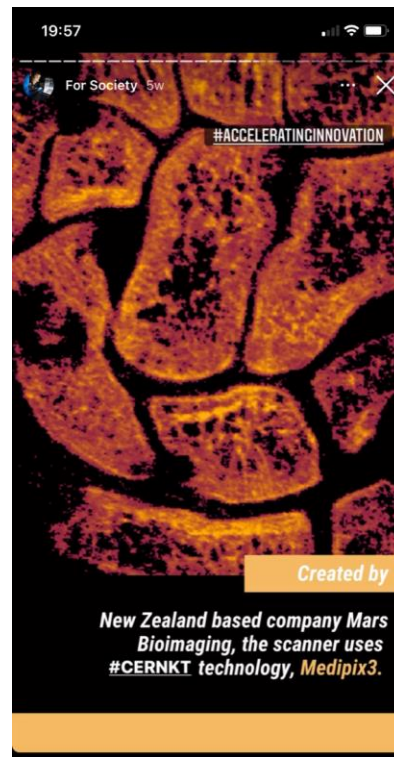


- CERN KT Friday round-up e-mail
- I can share CERN KT posts to IPPOG page



# Social Media

- Sharing #CERNKT Instagram posts and stories?
- “For Society” folder on Instagram was created in CERN



# CERN Entrepreneurship Student Programme (CESP)

<https://kt.cern/cesp>

Applications for 2021 (virtual) edition will open soon

Master level students wanting to use machine learning in their new start-up

- 5 weeks at CERN to develop and grow your start-up idea!



It's the Global Entrepreneurship Week #GEW2020!

This week, CERN celebrates this spirit of entrepreneurship by congratulating its latest graduates for the CERN Entrepreneurship Student Programme (CESP) 2020, a unique 5-week course that trains budding entrepreneurs to take their business ideas to the next level!

CESP is supported by the [Arconic Foundation](#) and [CERN & Society Foundation](#).

Find out more: <https://lnkd.in/dxAEk28>

#CERN4Entrepreneurship #CERNKT #CERNandSociety



# KT Newsletter

## CERN Knowledge Transfer

November 2020 Newsletter

Find out more at [kt.cern](http://kt.cern)

### News Highlights



#### Making hardware design open and free

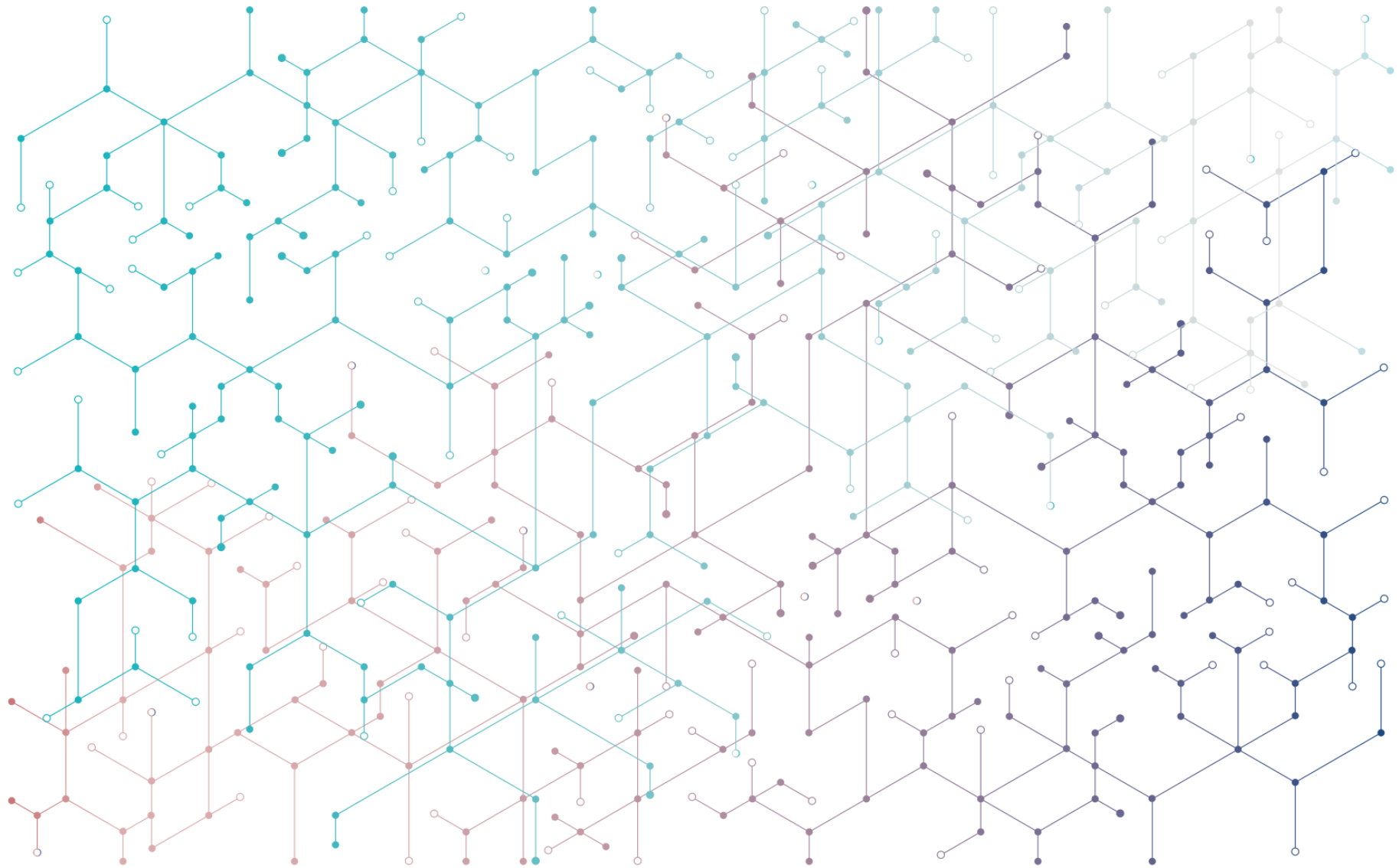
With the KT Spotlight Series, you are finding out about the experts behind the successful knowledge transfer activities at CERN. In this third issue, meet Javier Serrano, Head of the Hardware and Timing Section, Beam Controls Group (BE-CO).

Learn more about Javier and CERN's open-hardware designs [here](#).

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- KT in the news
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**Find out more at [kt.cern](http://kt.cern)**