

November 2024: The FBK projects making headlines

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An overview of FBK's innovative projects covered by the media in the past few weeks: from the algorithm against mafias to weather nowcasting, projects for educational inclusion and hydrogen cars.

Radio and television interviews, in-depth articles, stories on research and projects involving researchers from Fondazione Bruno Kessler: a look at some of communication and dissemination of our activities in the past few weeks. They range from **artificial intelligence** for monitoring mafia infiltration, to **nowcasting** weather techniques capable of revolutionizing short-term forecasting, to interventions addressing educational poverty through financial support for families and the hydrogen supply chain. A **review** that testifies to the contribution of FBK's **cutting-edge** research in responding to the grand challenges of contemporary society.

Algorithm beats mafia on time: [Gian Maria Campedelli](#)-researcher at the [MobS](#) unit-interviewed by Gennaro Tortorelli in **L'Espresso** tells about a revolutionary **algorithm that can anticipate mafia infiltration** in Italian municipalities, overcoming the reactive approach of institutions. Since 1991, 384 municipal councils have been dissolved for mafia, but investigations begin only after obvious crimes. Campedelli and his team have developed an artificial intelligence model that, by analyzing data on expenditures, elections and administrators, can predict at-risk municipalities with 96% accuracy.

"We were intrigued by the idea of using a method that is not very ordinary, but has great potential," Campedelli explains. The algorithm showed that infiltration not only affects southern Italy, but also central and northern Italy, with risk factors such as low investment in schools and sports and flexible management of public funds. This technology could revolutionize monitoring, anticipating the increasingly silent strategies of mafias.

[Algorithm batte la mafia sul tempo – Gennaro Tortorelli – L'Espresso October 30, 2024](#)

A guest on **Rai Italia**'s Casa Italia show, [Elena Tomasi](#), a researcher with the Data Science for Industry and Physics [DSIP](#) unit, explained the workings and importance of **nowcasting**, an innovative technique for extremely short-term weather forecasting. This method uses **radar data to train an Artificial Intelligence model** capable of **predicting precipitation intensity with extreme accuracy**. With a spatial resolution of just 500 meters and updates every 5 minutes, nowcasting allows weather conditions to be monitored in real time and in extraordinary detail.

[Casa Italia – Rai Italia – November 18, 2024 show from minute 47](#)

Is it possible to combat **educational poverty** by incentivizing family savings? [IRVAPP](#) researcher [Davide Azzolini](#) spoke about this on *Due di denari* on **Radio 24**, telling about the [“Will – Educare al Futuro” project](#). This show, taking inspiration from *Percorsi della Fondazione Ufficio Pio*, aims to **combat early school leaving and support education-related expenses of low income families**.

The national project, supported by numerous foundations, involved several implementing entities, and the IRVAPP center evaluated the effectiveness of this pilot, emphasizing its potential in promoting the right to study and reducing educational inequality.

[Due di denari – radio24 – November 5, 2024 show from minute 31](#)

[Michela Milano](#), guest of **Buon giorno regione** on **Rai3**, tells about her start as the new director of the [Center for Digital Society](#). Leading more than 70 researchers, she is engaged in the study of the **interaction between digital technologies and society**, with the aim of strengthening the Center's international positioning and identifying new strategic research areas.

A full professor at the University of Bologna and director of the “Alma Mater Research Institute for Human-Centered Artificial Intelligence,” she stresses the need to **address the limits and challenges related to data on which artificial intelligence models are based**, which are often polarized, and aims to develop more equitable and inclusive systems.

During the interview, he expressed enthusiasm for the Center's work and for her team: “*I found extremely competent people, who work passionately and scientifically in in great depth. Their enthusiasm is contagious and motivates me to contribute to the fullest in this new adventure.*”

[Buon Giorno Regione – Rai News – November 26, 2024 episode](#)

Finally, we offer you the talk on **Rail** by **Luigi Crema**, director of the Center for [Sustainable Energy](#), who gave an overview of the operation of **hydrogen cars** and the processes necessary to **produce green hydrogen**, as host of the **Linea Verde Italia** show. During the segment, Crema led journalist Monica Caradonna on a trip aboard a hydrogen car, explaining the operating principles and the opportunities offered by this technology for **more sustainable mobility**. Then, at the center's laboratories, he presented a model to illustrate the strategic role of hydrogen in **energy transition** and finally delved into the production chain and research projects currently underway at Fondazione Bruno Kessler.

[***Linea Verde Italia – Rail – September 14, 2024 show from minute 35***](#)

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RELATED MEDIA

- Gian Maria Campedelli | L'algoritmo batte la mafia sul tempo - gennaro tortorelli - L'Espresso 30 ottobre 2024: <https://lespresso.it/c/politica/2024/10/30/lalgoritmo-batte-la-mafia-sul-tempo/52172>
- Elena Tomasi | Casa Italia - Rai Italia - puntata del 18 novembre 2024 dal minuto 47: <https://www.raiplay.it/video/2024/11/Casa-Italia-del-18112024-0ad10fb1-b4e0-4a22-bd8f-e5c2d8e20ac8.html>
- Davide Azzolini | Due di denari - radio24 - puntata del 5 novembre 2024 dal minuto 31: <https://www.radio24.ilsole24ore.com/programmi/due-denari/puntata/trasmissione-5-novembre-2024-110500-2371718881943597>
- Michela Milano | Buongiorno Regione - Rai News - puntata del 26 novembre 2024 : <https://www.rainews.it/tgr/trento/video/2024/11/michela-milano-fbk-intelligenza-artificiale->

[limiti-piu-equa-f9591c07-944e-4070-b0de-343dd4f368f3.html](https://www.raipiu.it/limiti-piu-equa-f9591c07-944e-4070-b0de-343dd4f368f3.html)

- Luigi Crema | Linea Verde Italia - Rai1 - puntata del 14 settembre 2024 dal minuto 35:
<https://www.raipiu.it/video/2024/09/Linea-Verde-Italia---Trento---Puntata-del-14092024-a9e47e60-e1f1-4c6e-8f70-326434e220c2.html>

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