



SAPIE FORUM 2023

**30 Years of
Innovations
in the CEE region**

sapie ▶



The Slovak Alliance for Innovation Economy

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OUR MISSION

SAPIE acts as an independent and non-profit platform whose mission is to empower the Slovak innovation ecosystem. Being the largest professional association for innovations representing almost 200 member companies and organizations, SAPIE is also a leading platform for policy debate on digital economy and innovation in Slovakia aspiring to unite leaders within the CEE region. It is active in forming collaborative networks of private and public actors, supporting the startup scene and community and enhancing digital transformation of SMEs within the CEE region.



**THANK YOU FOR COMING
AND SEE YOU AT
SAPIE FORUM 2024!**



**MICHAL
KARDOŠ**
EXECUTIVE DIRECTOR,
SAPIE

I would like to thank everyone who contributed to turning SAPIE Forum from an idea to reality. Our partners, supporters, the SAPIE team, all the speakers and everyone who attended the event.

We intended the Forum as a celebration of the creative power of innovation. It also turned out to be a demonstration of the strength and potential of the local innovation ecosystem. The regional aspect of the Forum is very important to us, as we believe that exchanging best ideas and practices is the fastest and shortest path towards approaching our vision of Slovakia as a modern country, fully embracing the potential of digital technology, an attractive destination for foreign investors, but also local and international talent.

By fortuitous coincidence, the National Strategy for Research and Innovation 2030 was approved by the Slovak government on the first day of our Forum. We decided to take this as an opportunity to track Slovakia's progress in fulfilling the goals

set by Strategy 2030, as well as its performance in other key indicators related to innovation and digitalization.

We will shape the program of the upcoming Forums based on this data, which will allow us to continually bring to attention the issues and areas which we perceive as the most problematic or in need of improvement.

The following pages offer a glimpse into the key topics which were discussed at the first SAPIE Forum. Although the energy and inspiration from the actual discussions and exchanges of ideas and opinions cannot be fully transferred through text and pictures, we hope it triggers your curiosity to be there for the next Forum.

Thank you for being a part of our joint effort to learn from the lessons of the past and help create a future we can look forward to, and see you at SAPIE Forum 2024!

WHY INNOVATIONS?

The very first discussion panel of the 2023 SAPIE Forum asked this basic question which served as a foundation for the rest of the two-day program. By coincidence, the first day of SAPIE Forum was also the day when the Slovak government approved Slovakia's first National Strategy for Research and Innovation. Michaela Kršková, Chief Innovation Officer, who was heading the team which prepared this document, was also present on the first panel of the Forum.

Martina Kolesárová of the PONTIS Foundation defined innovation as "the art of making the impossible possible". Based on the trends of the digital age, this art will become a must for most countries not possessing abundant natural resources. As Jaroslav Bukovina of VAIA put it - innovations are a necessity if Slovakia wants to close the gap on Western countries, and the only path towards a sustainable increase in life quality.

When it comes to adopting digital technologies and making innovation a part of the country's identity, there's no better example than Estonia - the European leader in the number of startups, number of unicorns, or the amount

of VC investments per capita. Eve Peeterston, Head of Startup Estonia, linked Estonia's success back to the decision to increase public and private investment in R&D in 2019. However, many other factors come into play when it comes to creating a strong and functional ecosystem.

Creating such an ecosystem requires promoting innovative solutions and their potential, as well as an entrepreneurial mindset. Much closer cooperation between business and academia is also a much needed element. Another key issue concerns the lack of capital, which hinders faster development of the Slovak innovation ecosystem. Despite these important gaps, the potential remains great and numerous Slovak companies have demonstrated that adopting the innovative path enabled them to overcome all the obstacles and succeed globally. With the National Strategy in place, there's a clear vision and it is up to all of us to help it come to life.

IT'S NOT JUST ABOUT THE NUMBERS BUT A CHANGE OF MINDSET, ATTITUDES AND SOCIAL VALUES.

MARTINA KOLESÁROVÁ

THE BEST WAY TO TALK ABOUT INNOVATION IS WITHOUT MENTIONING THE TERM AT ALL. JUST FOCUS ON YOUR GOAL - WHAT YOU WANT TO IMPROVE.

EVE PEETERSON

KEY TAKEAWAYS

- A strong innovation ecosystem is a complex system and it takes time and effort to build it
- A country's policy approach is very important as it shapes the ecosystem and can boost or hinder its potential
- An entrepreneurial mindset needs to be instilled and promoted during the education process
- All key stakeholders from the private and public sector need to be involved
- A lack of capital considerably limits the entire ecosystem even if there is sufficient talent
- Innovation helps overcome the limits of a small market and success in this area has a strong spillover effect on the country's economy and quality of life

Notable speakers at SAPIE 2023 Forum



MARTINA KOLESÁROVÁ
Executive Director,
PONTIS Foundation



MICHAELA KRŠKOVÁ
CIO, Government
Office of the Slovak
Republic



EVE PEETERSTON
Head of Startup
Estonia



PETER KOLESÁR
Partner,
Civitta Slovakia



MIROSLAV GAŠPÁREK
CEO, Sensible
Biotechnologies



MICHAL NEŠPOR
Partner, Crowberry



JAROSLAV BUKOVINA
Business analyst,
VAIA



VLASTIMIL KOCIAN
CEO, Inovia



DIGITALIZATION AND UPSKILLING

In order to reap the benefits brought by the digital revolution, possessing the right digital toolset is a necessity. The democratizing effect of technology worldwide is evident, however, the skills and representation gap is real and prevents numerous groups and individuals from thriving in the digital world.

DIGITAL SKILLS ARE NOT A PRIVILEGE, THEY'RE A RIGHT.

GORI YAHAYA

The discussions at the Forum were aimed at identifying the most crucial skills to succeed in the job market, as well as the right strategies to empower everyone to succeed and build a sustainable ecosystem for the future of work. The foundation of such an ecosystem must be based on mutual trust and collaboration between the key stakeholders from the public, private and academia sectors.

Branislav Kleskeň of Leaf, highlighted the example of Košice, which has transformed itself through the rapid development of its IT and shared services sector. One of the main enablers of this transformation was close cooperation between local businesses and universities, which completely changed their curriculum to adapt to the needs of the employers.

“ A similar upskilling transformation is needed at the national level, as Slovakia continues to figure among the countries with the highest risk of potential job loss from automation. As the Digital Economy and Society Index confirms on annual basis, Slovakia continues to rank among the least developed EU countries in this category.

LISTENING IS A KEY SKILL; ITS LACK CREATES A BARRIER AGAINST PROGRESS. IT IS A CORE SKILL AND IT SHOULD BE INVESTED IN.

BRANISLAV
KLESKEŇ

Digitalization is critically important especially for SMEs, which form the backbone of the Slovak economy both in terms of jobs provided and value-added. Slovak SMEs need to understand the benefits it offers, be aware of the existing financing options for the digitalization process, and create the right strategy suited to their specific needs. A competitive Slovakia needs to transform its economy to be resilient and digital, and provide more support for digital skills and lifelong learning.

KEY TAKEAWAYS

- Digital economy offers numerous opportunities but not all individuals and groups have the possibility to participate
- Trust and cooperation between businesses, the public sector and academia are key
- Slovakia is very vulnerable to automation, its upskilling strategy should be aimed at the national level
- SMEs need to digitalize, it's a matter of survival for them
- Providers of the services as well as individuals looking to upgrade their skills should receive motivational incentives from the state
- Initiatives to provide information about the benefits, dos and don'ts, and financing opportunities related to digitalization of SMEs are very important

Notable speakers at SAPIE 2023 Forum



BRANISLAV KLESKEŇ
CEO, Leaf



KATRI-LIIS LEPIK
Associate Professor of Management, School of Governance, Law and Society, Tallinn University



PETRA KOTULIAKOVÁ
CEO, Aj Ty v IT



GORI YAHAYA
CEO, UpSkill Digital





REGULATIONS AND AI

As the capabilities of AI continue to grow at a rapid pace, the immense possibilities its implementation offers tend to overshadow some major concerns about its regulation. The associated risks are not always easy to foresee and concern the societal and ethical impact of AI.

The discussions at the Forum were focused around this central dilemma - what level of AI regulation is beneficial and what level hinders further development? The opinions varied, which only added to the quality of the discussion.

Dita Charanzova, Vice-President European Parliament, questioned the focus on ex-ante regulation, as it fails to understand the development of the market. She called for decreasing the regulatory burden, especially for SMEs. On the other hand, Dmitrij Černikov, COREPER I

Spokesperson, defended EU's regulatory approach stressing the need for organized regulation, data-based decision making and careful analysis.

Júlia Schvarcová, representing Google, called for a risk-based approach to AI regulation, adding that the process should be open, transparent

and participatory, with the inclusion of NGOs and experts. As she noted: *"The potential benefits of AI are enormous; but this technology doesn't come entirely without risks, which is why we place such an emphasis on building and deploying it responsibly."* Business representatives argued that EU's regulatory attempts are already causing startups to move their headquarters to non-EU countries, which is costly for the individual countries as well as for the EU as a whole, as it needs to keep pace with China and the United States in terms of AI development and investment.

The discussions also covered AI's transformative potential and the dos and don'ts of successful AI implementation. Companies should evaluate whether they collect the right data and have well set up and digitalized processes. Mária Bielíková of KlnIT highlighted the importance of trust - mutual trust within the innovation ecosystem as well as trust in AI technologies. This can be helped through closer cooperation between business and academia and an ethical approach to AI.

ON ONE HAND, AI IS EXTREMELY OVERRATED; ON THE OTHER HAND, THOSE WHO CHOOSE TO IGNORE IT WILL NOT SURVIVE.

MÁRIA BIELIKOVÁ

POLICY CAN NEVER BE AHEAD OF TECHNOLOGY BUT IT COULD BE MORE FLEXIBLE AND LISTEN TO US MORE.

MÁRIA VIRČÍKOVÁ

KEY TAKEAWAYS

- Regulation is needed but it cannot hinder progress
- It is very doubtful whether the implementation of regulation can keep pace with AI development
- Include relevant experts also from the business sector in the regulatory process
- AI technologies have to be trustworthy
- Legal/regulatory uncertainties present a big burden for businesses

Notable speakers at SAPIE 2023 Forum



DITA CHARANZOVÁ
Vice President, EP



HAJDI CENAN
CEO and Co-Founder, AIRT



JÚLIA SCHVARCOVÁ
Government Affairs and Public Policy Manager, Google



DMITRIJ ČERNIKOV
COREPER I Spokesperson, Permanent Representation of the Czech Republic to the EU



MARIÁN PORVAŽNÍK
Managing Co-Founder, Vacuum Group



ONDŘEJ FERDUS
Director, Digital Economy & Technology Unit, Confederation of Industry of the Czech Republic




MÁRIA BIELIKOVÁ
Founder and CEO of KlinT



MAREK ŠEBO
CEO and founder of Cognexa





THE FUTURE OF SMART CITIES IS NOW

As the digital revolution continues to transform the way people live, cities need to adapt to these changes and use technologies to the benefit of citizens. However, it is not about blind adoption of all new technologies. As the discussions related to the smart city topic confirmed, the right approach should focus on trying to understand the technologies and how they influence life in the city. Only then can city leaders make the right decisions about which technologies to implement and how.

An inspiring case study of how Amsterdam's city policy reflects these trends was presented by Aik van Eemeren, Head Innovation and R&D at the City of Amsterdam. This approach requires a new narrative surpassing the limits of the "smart city" label, aiming to create cities which are "future-proof". The ultimate goal is not just economic growth, but broad welfare and responsible tech.

Slovak cities are still in the process of catching up. For any meaningful change to happen, several preconditions must be in place. Peter

Fiabáne, The Mayor of the City of Žilina, and Ondrej Lunter, Chairman, BBSK, both stressed the critical importance of the right mindset, which has to be shared by the city's inhabitants and the employees of the city council. Matúš Vallo, the Mayor of Bratislava, highlighted the importance of the city's ability to communicate with its citizens.

“
CITIES THAT DO WELL ARE THE ONES WHICH ENGAGE WITH THE PUBLIC, ASK QUESTIONS, LISTEN TO ANSWERS, COMMUNICATE...

TODD ASHER

“
A common issue for cities concerns attracting the best minds, and this is equally true for Bratislava as it is for New York City. Public service jobs are still perceived as not challenging or innovative enough. However, as the discussions at the Forum confirmed, city councils are eager to implement innovative solutions and have a lot to offer to the best talents.

“
THE FIRST AND MOST IMPORTANT WAY TO SPEND POLITICAL CAPITAL IS TO HIRE GREAT PROFESSIONALS.

DAVID OSIMO

As for technologies and big data, there is no doubt they offer unprecedented opportunities. But they should serve a bigger purpose - identifying the real problems of the citizens and helping solve them. The key is to look for simple solutions with the biggest impact - not necessarily the most technologically advanced or the most expensive solutions.



KEY TAKEAWAYS

- Create a shared vision and attract the best talent
- Promote a service design culture
- Base your decisions on real data
- Engage the citizens, ask for their opinion, communicate transparently
- Look for simple solutions with the biggest impact
- Collaborate with other cities and learn from your own failures
- Act local, think global
- Aim to become a future-proof city

Notable speakers at SAPIE 2023 Forum



NON ARKARA
Senior Expert,
Digital Economy
Promotion Agency of
Thailand



DAVID OSIMO
Director of
Research, Lisbon
Council



AIK VAN EEMEREN
Head Innovation and
R&D at the City of
Amsterdam



MATÚŠ VALLO
Mayor of Bratislava, the
capital city of the Slovak
Republic



PETRA DZUŘOVÁ
Chief Innovation
Office, City of
Bratislava



HELIODOR MACKO
CEO, SEAK



PETER FIABÁNE
The mayor of the
City of Žilina



ONDREJ LUNTER
Chairman, BBSK



AVOIDING CYBER THREATS

Although most of the talks focused on the benefits of digitalization and the immense opportunities of the digital age, the looming risks of cyber threats were definitely not overlooked.

The last few turbulent years have shaken up the cybersecurity market, as the dramatic geopolitical events exposed new threats and altered the behavior of businesses as well as consumers.

Various trends are currently shaping the cybersecurity landscape and present new challenges. The post-pandemic explosion of remote work, fast-paced technology adoption, the rise of tech hubs in developing countries, or the monetization and proliferation of cyber weapons have all contributed to this trend.

With such a mixed bag of influences, it is critically important to be aware of the new threats which are relevant to your organization and stay

**EDUCATE
THE MARKET,
RATHER THAN
REGULATE IT.**

LUKASZ GAWRON

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up to date on the latest developments. A proactive approach always pays off more in the long run. SMEs in particular are susceptible to underestimating the risks and, at the same time, the consequences of a cyber attack can be much more devastating for them. Quality risk assessment of both internal and external threats to the organization and establishing trust-based systems were two priorities identified by Andrew Lee of ESET.

“

**REGULATION
DOESN'T DO
ANYTHING.
THE IMPLEMENTATION OF
REGULATION
DOES.**

ANDREW LEE

“

AN ORGANIZATION NEEDS TO MAKE SURE THEIR ENTIRE ECOSYSTEM IS RESILIENT – BOTH INTERNALLY AND EXTERNALLY.

DAN PASTOR

Does the answer lie in stronger and better regulation? Although the panelists agreed that it does play an important role, it is not a bulletproof solution. As Lukasz Gawron of the Polish Cybersecurity Cluster pointed out, education should still come before regulation. Andrew Lee added that even well-intentioned regulation efforts can create more trouble than good if not well implemented. Again, it was the strength and coherence of the ecosystem and mutual trust between the stakeholders that emerged as the most desirable development able to minimize cyber threats and their impact.

KEY TAKEAWAYS

- Trust is critically important in the cybersecurity market and in the entire ecosystem
- There's an urgent need for quality risk assessment against inside and outside threats
- SMEs present the most vulnerable targets and often underestimate the risks
- The cybersecurity landscape is changing fast, various global events and threats are impacting it simultaneously
- Regulation is useful but good implementation is key, otherwise it can also be harmful

Notable speakers at SAPIE 2023 Forum



LUKASZ GAWRON
Chairman of the Board, Polish Cybersecurity Cluster
#CyberMadeinPoland



ANDREW LEE
Vice President of Government Affairs & Global CTI Strategist, ESET



DAN PASTOR
Director, Global Go-to-Market Lead, Cyber and Risk Services, Mastercard



RADOSLAV REPA
Councillor, Cyber Security and Trust Services, National Security Authority





CEE: ATTRACTING GLOBAL TALENT

One of the recurring topics at the Forum concerned the urgent need to attract the best talent. None of the countries of the CEE region can rely on its sheer size. This is clearly a limiting factor, but it can also present various opportunities. Despite sharing a common communist past, the development of these countries over the past three decades varies.

WE BELIEVE THAT THOSE WITH THE TALENT WILL WIN AND THAT WILL BE US...

PETER VESTERBACKA

One legacy of the communist era that has a particularly damaging effect on Slovakia's innovation ecosystem is a lack of VC funding and angel investors. The same issue troubles most CEE countries, at least compared to well-developed VC markets in the Western world.

The example of Estonia proves that the right mindset and a supportive political environment can lead to truly amazing results in a surprisingly short amount of time.

IN SUCH A SMALL ECOSYSTEM, EVERY STARTUP COUNTS AND CAN HAVE A HUGE IMPACT.

MARIÁN PORVAŽNÍK

As Eve Peeterson, Head of Startup Estonia, noted, creating a functional ecosystem attractive for investors and foreign talent is a complex task and many factors influence the final result. In her opinion, the ultimate motivator for most people coming to work in Estonia is the opportunity to work at a cool startup.

ALL THE CEE ECOSYSTEMS ARE SMALL. THE COMPANIES KNOW FROM DAY ONE THAT THEY HAVE TO GO CONTINENTAL!

NICOLAS BRIEN

Nicolas Brien of the European Startup Network remarked that in the small CEE markets, the companies know from day one that they have to go global, which gives them a competitive advantage. He added that the quality of the local talent pool is the main strength of these countries and they should build their ecosystems around it.

As Peter Vesterbacka, a serial entrepreneur from Finland, explained, talent density is top priority even for countries with a well-established innovation ecosystem if they don't want to fall behind. This is especially true in the tech industry. The right strategy should thus focus on what each country has to offer; not only in terms of work conditions, but also the general quality of life and assistance with settling in.

KEY TAKEAWAYS

- Build your innovation ecosystems around your strengths
- Turn the limitations (small market size) into advantages
- Make innovation a part of the country's identity, this should translate into specific policy decisions and strategies (example of Estonia)
- Develop the VC market
- Don't miss out on the biggest opportunities with a huge demand for solutions (green tech, AI, automotive, the defense industry, sustainability, or smart cities)
- Success breeds success – share success stories, inspire and motivate others

Notable speakers at SAPIE 2023 Forum



PETER VESTERBACKA
serial entrepreneur



EVE PEETERSTON
Chief Executive,
Startup Estonia



MARY MACPHERSON
President and CEO,
Slovak American
Foundation



MARIÁN PORVAŽNÍK
Managing
Co-Founder,
Vacuum Group



NICOLAS BRIËN
Chairman,
European
Startup
Network



TRACKING SLOVAKIA'S PROGRESS

SAPIE Forum was designed to bring together key stakeholders, strengthen the innovation ecosystem, inspire with best practices from abroad, and, above all - to push for actual improvements and real results.

We plan to track Slovakia's progress in the fields of innovation and digitalization on annual basis and continually bring to attention the issues and areas which we perceive as the most problematic or in need of improvement.

To establish a clear starting point for objective evaluation, we have decided to focus on the goals defined in the National Strategy for Research, Development and Innovation 2030 (Strategy 2030) and evaluate the improvements achieved. We selected three measurable goals that will serve as a good baseline for evaluating the development in the years to come.

Besides tracking Slovakia's progress in reaching these three goals, we also want to follow the country's development in other key areas related to innovation and digitalization. For the first category, we will follow its performance in the European Innovation Scoreboard (EIS). The main indicators from The Digital Economy and Society Index (DESI) will serve as a good measure of the country's digitalization efforts.

EIS provides a comparative analysis of innovation performance in EU countries, other European countries, and regional neighbors, assessing the relative strengths and weaknesses of their national innovation systems. DESI offers a summary of the most important indicators related to the digital performance and development of European countries.

■ European Innovation Scoreboard: Slovakia 2022

Source: European Innovation Scoreboard 2022

	Performance relative to EU, 2022	Performance change 2021-2022
SUMMARY INNOVATION INDEX	64.3	4.6
Human resources	71.8	0.0
Attractive research systems	54.2	7.9
Digitalisation	68.4	7.9
Finance and support	38.6	7.6
Firm investments	55.7	4.4
Use of information technologies	82.6	-6.5
Innovators	42.3	14.2
Linkages	50.1	-0.1
Intellectual assets	52.9	4.4
Employment impacts	54.6	9.7
Sales impacts	96.9	11.7
Environmental sustainability	93.4	-5.6

According to EIS 2022, Slovakia belongs in the Emerging Innovator category, performing at 64.3% of the EU average. Its performance is above the average of the Emerging Innovators (50.0%). Slovakia's performance increase from the previous year (4.6%-points) is lower than that of the EU (9.9%-points), which means that its performance gap to the EU is becoming larger.



THREE MAIN GOALS SELECTED FROM STRATEGY 2030

1. Slovakia needs to climb from its 24th spot in the European Innovation Scoreboard (EIS) to reach spot number 14.
2. Increase the amount of private investment in science, research and innovation from 0.5% to 1.2% of GDP.
3. Increase R&D intensity, i.e. the total R&D expenditure as a percentage of GDP, from the current ca. 0.9% to EU's average of 2%.

Human Capital (rank / score)

Source: DESI 2022

Slovakia	EU
19 / 44.1	45.7

Connectivity (rank / score)

Source: DESI 2022

Slovakia	EU
21 / 49.8	59.9

Integration of Digital Technology (rank / score)

Source: DESI 2022

Slovakia	EU
21 / 27.8	36.1

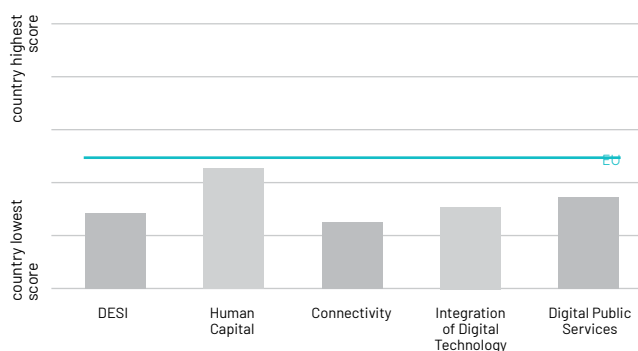
Digital Public Services (rank / score)

Source: DESI 2022

Slovakia	EU
24 / 52.0	67.3

DESI 2022 - Relative Performance by Dimension

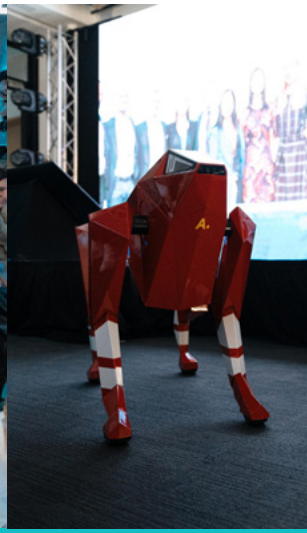
Source: DESI 2022



Slovakia ranked 23rd of 27 EU Member States in the 2022 edition of the Digital Economy and Society Index (DESI), failing to reach the EU average in any of the four measured categories. It was ranked 22nd in 2021.



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SAPIE FORUM 2023

30 Years of Innovations in the CEE region

UNDER THE AUSPICES

- **President of the Slovak Republic**
- **Representation of the European Commission in the Slovak Republic**
- **Ministry of Economy of the Slovak Republic**
- **Ministry of Foreign and European Affairs of the Slovak Republic**

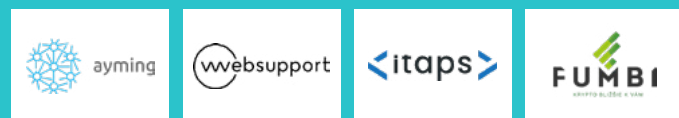
CORPORATE PARTNERS



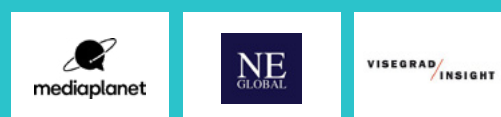
INSTITUTIONAL PARTNERS



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MEDIA PARTNERS



COMMUNITY PARTNERS



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