

Nano Science, Technology and Industry Scoreboard

Pandemic Protection Is Accelerating Investment in Artificial Intelligence and Nanotechnology

2021-01-04 Economic forecasters say fallout from COVID-19 is driving huge investment within AI and Nanotechnology as healthcare investment is expected to grow at a rate of nearly 50% extra a year towards a market set to be worth \$1.333 trillion by 2027.

The acceleration highlights wide recognition that the world cannot afford the human and economic cost of another pandemic. At present, 70% of global healthcare provision is spent on providing care for the last few months of our lives.

It is further accepted that the pandemic has shown the inefficiency of the world's centralized healthcare model and its poor outcomes, with far reaching economic effects and negative impacts on treating cancers, mental health, cardio-vascular conditions, and the emerging challenge from Long COVID.

But observers say this will now trigger the greatest transformation of investment in advanced healthcare technologies since World War II.

These include sophisticated nanotechnology-based diagnostics, biomarkers, vaccines, novel therapies, highly targeted nanomedicines and AI, allowing us to move to a more sustainable, digitised, decentralized and democratised point-of-care environment.

With dynamic investment, these will free our economies and future-proof us from infectious diseases as well as develop solutions to antibiotic resistance, another global healthcare challenge that only technology can solve.

Investors are already switching to this accelerated model, away from traditional healthcare infrastructure and onto the point of care and precision medicine. This delivers sustainable healthcare economics as well as improving life and longevity. Such investment is expected to bring transformational impact and returns over the next decade and beyond. This trend was apparent before COVID-19 but investment in healthcare technology in the second half of 2020 has already reached record levels and is set to climb significantly over the next decade.

One particular investment group has developed a unique gateway fund to innovative and disruptive technologies, targeting current and future pandemics, as well as transforming global healthcare.

This international investment platform operated by <u>Vector Innovation Fund</u> G-P Sàrl, is registered and regulated as an Alternative International Investment Fund, domiciled in <u>Luxembourg</u> due to the country's world class reputation for tax efficiency and regulatory standards. This highly innovative fund is attractive and available only to sophisticated international, UHNW, family office, sovereign wealth, and other institutional investors.

Vector Innovation Fund (VIF) has now launched a \$300 million sub-fund for pandemic protection and future healthcare, aiding and supporting precision medicine, highly advanced point of care and AI technologies to support the global economy, sustainable healthcare, and life longevity.

Paul Stannard, Chairman and General Partner of VIF, said: "Politicians are always forced to defend our old, centralized healthcare model but the pandemic has proved beyond doubt it's not fit for purpose. A new approach to emerging technologies is vital.

"We have brought together some of the world's leading figures in biomedicine, advanced diagnostics, nano biomarkers, telemedicine, AI and machine learning to accelerate these transformational technologies into the markets, backed by sophisticated and institutional investors creating one of the most dynamic international investment structures.

"Globally, we have had to deal with Ebola, Zika Virus, Bird Flu, and now COVID-19 in one decade, but the economy must adapt to a new future, where prevention and early intervention as well as using AI to drive more sustainable models for healthcare and investment.

"One example of this is the profound change in telemedicine in just a few months. These technology solutions for GPs and patients, have allowed us to monitor and support many

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more patients during this pandemic - the start of an unstoppable transformation.

"The previous investment criteria were holding back innovation and only reinforcing the broken property-focused and centralized models for healthcare. Innovators have proved that they can develop and commercialize novel technologies and have some approved within months, not years, and this trend will advance beyond the current crisis, which is creating this groundswell of pent-up investment in advanced technologies.

"Our team have an excellent track record in the industry, healthcare, technology and investment, with 21 exits and a total value creation of \$2.4billion, including two successful IPOs."

A recent report by KPMG and HFS Research highlighted how companies and governments need to make smart investments in emerging technologies if they are to prevail against future pandemics: 65% of 900 global executives polled said: "We don't have a choice or we risk threatening our very existence."

Paul Sheedy founder of <u>The World Nano Foundation</u>, an international not-for-profit organization for the commercialization of nanoscale technologies, said: "Nanomedicine and the decoding of the genome have been enhancing healthcare for a number of years, but the pandemic has catapulted healthcare investment creating a "hockey stick" effect for investors.

"This includes vastly improved home testing and advanced diagnostics where we know outcomes are significantly improved through early intervention. Added to this, highly targeted precision medicines or therapies are going to transform all forms of healthcare, allowing us to work in parallel with and then ultimately move away from the current archaic centralized healthcare system delivery.

"Nanotechnology is forecast to more than double from \$54.2 billion this year to \$126.8 billion by 2027 and will create a positive force for change when combined with AI and machine learning, forecast on its own to soar 22.5% a year through to 2027 from a \$284.38 billion market in 2019.

"We are going to see these twin forces of innovation transform how we live, work, and

manage our health in real time as well as develop sustainable models for everything from food production and energy to transport and pollution, all of which improve health and wellbeing."

The world of philanthropy and impact investing is also undergoing significant change as we realise that we must advance everything from healthcare for all – with more affordable point of care – to climate change, improved biodiversity, and reversing pollution.

Naz Bashir trustee of global technology charity <u>World Science Aid</u> said: "The world has suddenly woken up to the fact that the global challenges of healthcare, pollution and climate change must now be tackled head on.

"The pandemic has proved that money has no value without sustainable life and a stable economy. The world has reinforced the mistakes of supporting tired funding models for too long, and one positive outcome from the current global crisis is recognition that we now need to invest for the future, and these new technologies can right some of the wrongs of the past. For instance, two billion of the world's seven billion people still do not have access to clean water or simple point of care technology.

"The next generation deserve and demand a better future that these enabling technologies can offer our governments and investors towards building a better post-pandemic future."

Read the original article on Nano Magazine.