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VIEW

Preparing for 10 billion people

VERITAS
INVESTMENT PARTNERS

PREPARING FOR 10 BILLION PEOPLE



It took from the dawn of humanity until 1803 for the global population to reach one billion¹. In November, we passed the 8 billion milestone, just 11 years after we hit 7 billion². Predictions vary about where we go from here, but most estimates suggest there will be nearly 10 billion of us by 2050.

A tale of two (mega) cities

Contrasts between regions are stark, with population booms and busts predicted for emerging and developed markets respectively. Tokyo currently holds the crown as the world's most populated city, but its population is believed to have peaked in 2018 and it could halve in the next 90 years³. In Lagos, the population boom is just beginning. By 2035, 24.5 million people are expected to live there and by 2100, the coastal "megapolis"⁴ between Abidjan in Ivory Coast and Lagos in Nigeria could be home to over 500 million people⁵.



Tokyo



Lagos

In these growing cities, incomes are rising too. While the Covid-19 pandemic pressed pause on the trend, it still looks like 70% of global middle class spend will be in emerging markets come 2030. Reductions in global poverty levels is good news, but they present us with a dilemma: how on earth (quite literally) can we provide

the food, power and goods to meet the needs of a growing middle class without adding more pressure to already overstretched resources. Last year, Earth Overshoot Day – the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year – fell on 28 July. If everyone on the planet lived like those in the US, it would fall in March⁶.

For governments, the answer is regulation; for companies, it's innovation. As discussed previously in this note, in a world full of cutting-edge development, it can be hard to call the winners. We tend not to buy the "headline" companies but prefer to gain exposure through companies providing the underlying technology and crucial "ingredients", who can continue to grow regardless of which end-product proves the biggest hit with consumers.

Food for thought

When it comes to innovation in the food sector, this approach means client portfolios hold **Kerry** and **DSM**, rather than Beyond Meat. Providing a sustainable food supply, which will ensure access to a healthy diet for all, is one of the greatest challenges we face. So far, we have failed: according to the World Health Organisation, over 800 million people go hungry every day, 1.9 billion people are overweight and a third of all food produced is lost or wasted⁷.

To change this, we need to get creative. With 27 research and development centres around the world, Kerry has solutions to address issues throughout the food industry, from providing plant-based protein technologies to reducing the sugar content of food without affecting the taste or texture. On a visit to the innovation centre in Dublin, two lucky members of the investment team sampled some of Kerry's creations, including plant-based cheese and bacon products and reduced-sugar cake. We couldn't distinguish them from the "originals".

Kerry's technology can also triple the shelf-life of meat products, using all natural solutions⁸. Over the Christmas period in the UK, we waste turkey meat equivalent to 2 million whole birds⁹: anything that can reduce this is to be welcomed. Working with a range of companies, from household names like Starbucks and McDonalds to start-ups and supermarket own-brands, changing the food industry for the better is at the heart of Kerry's strategy.

1. <https://www.weforum.org/agenda/2021/12/world-population-history>

2. Ibid

3. <https://worldpopulationreview.com/world-cities/tokyo-population>

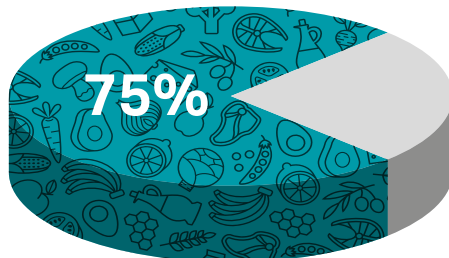
4. A megapolis is defined as a large and densely clustered group of metropolitan centres

5. <https://www.theguardian.com/world/2022/oct/27/megalopolis-how-coastal-west-africa-will-shape-the-coming-century>

6. <https://www.overshootday.org/about/>

7. https://www.who.int/health-topics/nutrition#tab=tab_2

75% of all our food comes from 5 animals and 12 plants



75% of our food comes from just five animals and 12 plants so DSM is working to find alternatives. For example, following 10 years of research, the company launched **CanolaPRO**, a high-quality protein made from a co-product of rapeseed oil production. With a very small environmental footprint, it will allow food and beverage companies to develop plant-based products that offer complete proteins, are free from major allergens and meet the demands of consumers keen to reduce their meat consumption¹⁰.

DSM's 1,500 scientists are also behind big changes in agriculture. For example, feed additive **Bovaer** reduces methane emissions by 30% from dairy cows and 45% from beef cattle on average¹¹, helping to curb a major source of greenhouse gas emissions. Meanwhile, a cocktail of DSM's natural ingredients is helping the farming industry reduce its use of antibiotics while maintaining the highest standards of animal health and welfare. Recognising the importance of this area, we are working hard to uncover further investment opportunities in agriculture.

Keeping the lights on

Alongside growing populations comes growing energy demand. Accelerated by Russia's invasion of Ukraine and the need to move away from fossil fuels, especially in Europe, the shift to electrification is taking off. In a recent presentation to the team, investment manager David Price noted how, while overall energy demand should increase by only 8%, global electricity demand is set to triple by 2050 but in emerging markets, demand could increase fivefold¹². Excellent news for companies providing the crucial components for electric infrastructure.

Infineon Technologies' power semiconductors are integral to the generation, transmission and consumption of renewable energy, powering 50% of the installed capacity for solar and wind power and helping to halve power loss during transmission¹³. **Amphenol's** connectors and sensors are enabling electrification across multiple end markets, such as the auto industry, heavy equipment, energy storage and aviation. With a reputation for robust materials and top-end safety features, such as solutions to

prevent overheating, Amphenol is the go-to option for many customers.

'Regulations force people to do better'¹⁴

It is debateable whether the above statement is always true but, either way, regulations are coming thick and fast. As many investee companies sit at the intersection of these regulations and innovation, we can have greater confidence in their long-term growth opportunities. In the US, the Inflation Reduction Act (IRA) could provide over \$370 billion of investments in clean energy and climate investments, potentially doubling the US' deployment of wind and solar energy by 2030¹⁵. As Amphenol's CEO noted recently: "Look at some of the legislative priorities in our country and many others... That looks like a good place to be".

It's a similar story in the food industry. In addition to health-related legislation, such as the UK's HFSS¹⁶, governments in the US, China and Europe are shining a spotlight on the traceability of food throughout supply chains to improve safety standards, reduce waste and address environmental issues. Branching into new markets, **Avery Dennison's** digital labelling technology means food can be tracked from farms all the way through the supply chain to shops and restaurants, where customers can access all provenance, expiration, and nutritional information¹⁷. Life sciences company **Thermo Fisher Scientific** has a crucial role to play here too, supplying state-of-the-art testing equipment and chemicals so that the highest standards of food safety and quality can be maintained.

Meanwhile, many hope the agreement at the recent COP15 Biodiversity Summit to protect 30% of nature on the planet by 2030 will translate into more concrete regulations and a move towards a more circular economy, in which reusing and recycling materials is the norm. After listening to the views of clients during recent roundtable discussions, this is a topic we will be discussing in more detail with investee companies. Further details will be included in our next stewardship report.

Demography is destiny?

Attributed to French philosopher Auguste Comte, this phrase is often criticised as an exaggeration. But there is little doubt that growing populations and rising incomes in emerging markets, combined with extraordinary recent events and government intervention, have increased the urgency for us to find ways to do more with less. This in turn is creating opportunities for innovative companies to prosper.

8. <https://www.kerry.com/about/purpose/sustainability/people/nutrition-health#tabs-e1a180be16-item-6332f34419-tab>

9. <https://www.edie.net/in-numbers-what-is-the-environmental-impact-of-christmas-celebrations/>

10. https://www.dsm.com/food-beverage/en_US/insights/insights/press-releases/dsm-announces-launch-of-vertis-canolapro.html

11. <https://www.dsm.com/corporate/sustainability/our-purpose/minimizing-methane-from-cattle.html>

12. International Energy Agency

13. <https://www.infineon.com/cms/en/about-infineon/sustainability/Environmental-Sustainability-and-Climate-Protection/product-related-environmental-sustainability/>

14. Jay Leno, American television host

15. <https://www.forbes.com/sites/energyinnovation/2022/08/23/inflation-reduction-act-benefits-clean-energy-tax-credits-could-double-deployment/>

16. Regulation to restrict the promotion of products high in fat, sugar or salt by location and by volume price

17. <https://printers.averydennison.com/en/home/industry-solutions/food.html>

SPOTLIGHT:

ACCESS TO FINANCE = ACCESS TO OPPORTUNITY

Despite improvements in global income levels, basic financial services remain out of reach for one-third of all adults. One billion people do not have official proof of identity and 1.4 billion people remain unbanked¹⁸. Credit issues are not confined to emerging markets either: 28 million Americans and five million Britons are “credit invisible” because their financial profiles are insufficient for lenders to make informed decisions¹⁹.

Improving financial health can transform lives and boost social and economic development, which explains why the UN has included access to financial services in its Sustainable Development Goals. For companies in portfolios, addressing these issues is central to their business models. Some examples are included below.

Experian – Through the Social Innovation programme, teams across Experian are designing products to meet a specific societal need, as well as generate new revenue streams for the business. Prove-ID Link has helped **25 million** people in India, allowing them to prove their identity by connecting lenders’ verification systems with the government’s Unique Identification Database²⁰. Meanwhile, PowerScore has supported more than **5.2 million** applications for credit products since its launch in Indonesia last year by giving millions of unbanked or underbanked people a credit profile for the first time²¹.

Mastercard – The company has already helped to bring over **675 million** people and **25 million** micro, small and medium enterprises into the digital economy²². Mastercard also partners with governments on 300 initiatives across 60 countries, using its digital tools and data analytics to help governments design and implement tailor-made programmes. For example, in the US, the Direct Express programme means people can receive federal benefit payments even if they do not have a bank account²³.

Intuit – With a unique view into a business’s finances, QuickBooks Capital makes it easier for small businesses to access capital and in 2022, the programme enabled **\$1.3 billion** in loans²⁴. Meanwhile, noting that people with poor credit pay more than twice as much for car insurance, Credit Karma Drive supports usage-based insurance that tracks driving behaviour via a smartphone, with rates set based on driving skill rather than credit history²⁵. Intuit also provides students with financial skills for life through online courses and simulation tools.



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18. <https://www.worldbank.org/en/news/feature/2022/07/21/covid-19-boosted-the-adoption-of-digital-financial-services>

19. <https://www.experianplc.com/responsibility/improving-financial-health/>

20. https://www.experianplc.com/media/4461/experian-sr22_final.pdf

21. https://www.experianplc.com/media/4461/experian-sr22_final.pdf

22. Mastercard Corporate Sustainability Report 2021

23. <https://www.fiscal.treasury.gov/directexpress/>

24. <https://www.intuit.com/company/corporate-responsibility/financial-empowerment/>

25. https://www.intuit.com/oidam/intuit/ic/en_us/content/intuit-cr-report-2022-icom.pdf

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