# Adapt to Survive: Business transformation in a time of uncertainty



References

# **Reference List**

- United Nations Environment Programme, Global Environment Outlook for Business (Nairobi, 2020) https://wedocs.unep.org/bitstream/handle/20.500.11822/31311/GEO\_Bus\_flyer. pdf?sequence=1&isAllowed=y
- 2. United Nations Environment Programme, Global Environment Outlook GEO-6: Healthy Planet, Healthy People (Nairobi, 2019)
  - https://wedocs.unep.org/bitstream/handle/20.500.11822/27539/GE06\_2019.pdf?sequence=1&isAllowed=y
- International Energy Agency, CO<sub>2</sub> emissions by energy source, 1990-2018 (Paris, 2020)
   https://www.iea.org/data-and-statistics/charts/global-energy-related-carbon-dioxide-emissions-by-source-1990-2018
- 4. P.M. Forster and others, Current and future global climate impacts resulting from COVID-19. Nature Climate Change (2020) https://doi.org/10.1038/s41558-020-0883-0
- 5. S. Evans, Analysis: Coronavirus set to cause largest ever annual fall in  $CO_2$  emissions (Carbon Brief, 2020) https://www.carbonbrief.org/analysis-coronavirus-set-to-cause-largest-ever-annual-fall-in-co2-emissions
- 6. World Resources Institute, Creating a Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050 (2019) https://research.wri.org/sites/default/files/2019-07/WRR\_Food\_Full\_Report\_0.pdf
- 7. The Food and Land Use Coalition, *Growing Better: Ten Critical Transitions to Transform Food and Land Use* (2019) https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf
- 8. Secretariat of the Convention on Biological Diversity, Global Biodiversity Outlook 5 (Montreal, 2020) https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf
- 9. World Wide Fund for Nature, Living Planet Report 2020 Bending the Curve of Biodiversity Loss (Gland, 2020) https://www.zsl.org/sites/default/files/LPR%202020%20Full%20report.pdf
- 10. World Economic Forum, *New Nature Economy Report II: The Future of Nature and Business* (Geneva, 2020) http://www3.weforum.org/docs/WEF\_The\_Future\_Of\_Nature\_And\_Business\_2020.pdf
- 11. United Nations Environment Programme, Global Resources Outlook 2019: *Natural Resources for the Future We Want. A Report of the International Resource Panel* (Nairobi, 2019) https://wedocs.unep.org/bitstream/handle/20.500.11822/27517/GRO\_2019.pdf?sequence=3&isAllowed=y
- 12. G.M. Mudd and S.M. Jowitt, From mineral resources to sustainable mining The key trends to unlock the holy grail? In Proceedings, The Third AusIMM International Geometallurgy Conference (The Australasian Institute of Mining and Metallurgy, 2016) https://www.onemine.org/document/abstract.cfm?docid=234608
- 13. World Economic Forum, *The Global Risks Report 2020* (Geneva, 2020) http://www3.weforum.org/docs/WEF\_Global\_Risk\_Report\_2020.pdf
- 14. T.M. Lenton, Tipping positive change. Philosophical Transactions of the Royal Society B: Biological Sciences vol. 375, No. 1794 (January 2020) https://royalsocietypublishing.org/doi/full/10.1098/rstb.2019.0123
- 15. K. Levin, 6 Ways the Climate Changed Over the Past Decade (World Resource Institute, 2019) https://www.wri.org/blog/2019/12/6-ways-climate-changed-over-past-decade
- 16. Earth Overshoot Day, Earth overshoot day 2020 fell on August 22 (Global Footprint Network 2020) https://www.footprintnetwork.org/our-work/earth-overshoot-day/#:~:text=In%202020%2C%20Earth%20 Overshoot%20Day,carbon%20dioxide%20in%20the%20atmosphere.
- 17. A. W. Moore and others, Toward an integrative framework for local development path analysis. Ecology and Society vol. 23, No. 2 (2018) https://www.ecologyandsociety.org/vol23/iss2/art13/
- 18. United Nations Environment Programme, Decoupling Natural Resource Use and Environmental Impacts from Economic Growth, A Report of the Working Group on Decoupling to the International Resource Panel (Nairobi, 2011) https://wedocs.unep.org/bitstream/handle/20.500.11822/9816/Decoupling\_FReport\_EN.pdf?sequence=1&isAllowed=y
- 19. F. Geels and others, *Automobility in Transition? A Socio-technical Analysis of Sustainable Transport* (Routledge, 2011) https://www.routledge.com/Automobility-in-Transition-A-Socio-Technical-Analysis-of-Sustainable-Transport/Geels-Kemp-Dudley-Lyons/p/book/9780415885058

- 20. J. Grin, J. Rotmans and J. Schot J, *Transitions to Sustainable Development: New Directions in the Study of Long-Term Transformative Change* (Routledge, 2010) https://www.routledge.com/Transitions-to-Sustainable-Development-New-Directions-in-the-Study-of-Long/Grin-Rotmans-Schot/p/book/9780415898041
- 21. S. Klepper, Entry, exit, growth, and innovation over the product life cycle. American Economic Review vol. 86, No. 3 (1996) https://www.jstor.org/stable/2118212?seq=1
- 22. K. Hölscher, J. Wittmayer and D. Loorbach, Transition versus transformation: What's the difference? Environmental Innovation and Societal Transitions vol. 27 (June 2018) https://doi.org/10.1016/j.eist.2017.10.007
- 23. J.C. van den Bergh, B. Truffer and G. Kallis, Environmental innovation and societal transitions: Introduction and overview. Environmental Innovation and Societal Transitions, vol.1, No. 1 (2011) https://www.sciencedirect.com/science/article/abs/pii/S2210422411000219
- 24. European Commission, Negotiation process of the 2021-2027 long-term EU budget & NextGenerationEU (Brussels, 2020) https://ec.europa.eu/info/strategy/eu-budget/long-term-eu-budget/mff-2021-2027-and-ngeu-negotiations\_en#latest
- 25. United Nations Environment Programme, Costa Rica: *The 'living Eden' designing a template for a cleaner, carbon-free world* (Nairobi, 2019) https://www.unenvironment.org/news-and-stories/story/costa-rica-living-eden-designing-template-cleaner-carbon-free-world
- 26. D. Gijs, H. Larsen and F. Steward, Transformative innovation policy: Addressing variety in an emerging policy paradigm. Research Policy, Elsevier, vol. 48, No.4 (2019) https://doi.org/10.1016/j.respol.2018.10.028
- 27. International Renewable Energy Agency, *Towards 100% Renewable Energy: Status, Trends and Lessons Learned* (Abu Dhabi, 2019) https://coalition.irena.org/-/media/Files/IRENA/Coalition-for-Action/IRENA\_Coalition\_100percentRE\_2019\_v1.pdf?la=en&hash=28B29862FDCB23FDE3F1461F83B778479ABD60FD
- 28. United Kingdom, Department of Transport, *The Road to Zero Next steps Towards Cleaner Road Transport and Delivering our Industrial Strategy* (London, 2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/739460/road-to-zero.pdf
- 29. M. McCormick, *Orsted's green energy transformation drives profits* (The Financial Times, 1 November 2018) https://www.ft.com/content/6613773c-ddb0-11e8-8f50-cbae5495d92b
- 30. Orsted, How we build a world run on renewable energy (2019) https://orsted.com/en/sustainability/combating-climate-change/our-green-transformation
- 31. G. Chazan, *RWE and Eon find fortunes diverge* (The Financial Times,16 November 2016) https://www.ft.com/content/e214101c-856a-11e6-8897-2359a58ac7a5
- 32. Deloitte, *The 2030 Decarbonization Challenge: The Path to the Future of Energy* (2020) https://www2.deloitte.com/global/en/pages/energy-and-resources/articles/the-2030-decarbonization-challenge.html
- 33. World Economic Forum, Fast-tracking a zero waste economy: More governments and business leaders commit to circular economy action (Geneva, 2018) https://www.thegef.org/news/fast-tracking-zero-waste-economy-more-governments-and-business-leaders-commit-circular-economy
- 34. A. Wilen, *H&M* tests renting clothes to address environment concern (Bloomberg, 2019) https://www.bloomberg.com/news/articles/2019-11-29/h-m-tests-renting-clothes-as-fashion-faces-environment-concern
- 35. The Good Food Institute, *Plant-based market overview* (Washington DC, 2019) https://www.gfi.org/marketresearch
- 36. K. Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist* (Chelsea Green Publishing, 2018) https://www.chelseagreen.com/product/doughnut-economics-paperback/
- 37. L. Hough-Stewart and others, *What is a Wellbeing Economy? Different Ways to Understand the Vision of an Economy that Serves People and Planet* (London, Wellbeing Economy Alliance, 2019) https://wellbeingeconomy.org/wp-content/uploads/2019/12/A-WE-Is-WEAll-Ideas-Little-Summaries-of-Big-Issues-4-Dec-2019.pdf
- 38. Ellen MacArthur Foundation, *Towards the Circular Economy* (Cowes, 2013) https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf
- 39. B. Batinge, J. K. Musango and A. C. Brent, Leapfrogging to renewable energy: The opportunity for unmet electricity markets. The South African Journal of Industrial Engineering vol. 28, No. 4 (2017) http://sajie.journals.ac.za/pub/article/view/1702

- 40. P. Desmond, *The circular economy in Africa an opportunity to leapfrog?* (Rethink Solutions Limited, 2019). https://www.rethinkglobal.info/circular-economy-in-africa-1/
- 41. J. Watson and R. Sauter, Sustainable innovation through leapfrogging: A review of the evidence. International Journal of Technology and Globalisation vol 5, No. 3-4 (April 2011) http://www.inderscience.com/offer.php?id=39763
- 42. S. Kavadias, K. Ladas and C. Loch, The transformative business model. Harvard Business Review vol. 94, No. 10 (October 2016) https://hbr.org/2016/10/the-transformative-business-model
- 43. C. Hepburn and others, *Will COVID-19 Fiscal Recovery Packages Accelerate or Retard Progress on Climate Change?* (Oxford Smith School of Enterprise and the Environment, 2020) https://doi.org/10.1093/oxrep/graa015
- 44. Phys.org, *Pandemic recovery plans neglecting green economy: OECD* (2020) https://phys.org/news/2020-09-pandemic-recovery-neglecting-green-economy.html
- 45. United Nations, *COVID-19* and *Human Rights: We are All in this Together* (April 2020) https://www.un.org/en/un-coronavirus-communications-team/un-urges-countries-%E2%80%98build-back-better%E2%80%99
- 46. M. Darby, Which countries have a net zero carbon goal? (Climate Home News, 2019) https://www.climatechangenews.com/2019/06/14/countries-net-zero-climate-goal/
- 47. E.K. Velten, T. Stoll and L.Meinecke, *Measures for the promotion of electric vehicles* (Ecologic Institute, Berlin, 2019) https://www.ecologic.eu/16599
- 48. Federal Democratic Republic of Ethiopia, *Environment, Forest and Climate Change Commission, Ethiopia's Climate Resilient Green Economy National Adaptation Plan* (May 2019) https://www4.unfccc.int/sites/NAPC/Documents/Parties/Final%20Ethiopia-national-adaptation-plan%20%281%29.pdf
- 49. J. Margolis, *Sweden tries to curb buy-and-throw-away culture through tax breaks* (The World, 2017) https://www.pri.org/stories/2017-01-02/sweden-tries-curb-buy-and-throw-away-culture-through-tax-breaks
- 50. J. Elkington and J. Zeitz, *The Breakthrough Challenge: 10 Ways to Connect Today's Profits with Tomorrow's Bottom Line* (Jossey-Bass, 2014) https://www.wiley.com/en-usThe+Breakthrough+Challenge%3A+10+Ways+to+Connect+Today%27s+Profits+With+Tomorrow%27s+Bottom+Line-p-9781118539699
- 51. University of Cambridge Institute for Sustainability Leadership, Leading with a Sustainable Purpose: Leaders' Insights for the Development, Alignment and Integration of a Sustainable Corporate Purpose (2020). https://www.cisl.cam.ac.uk/resources/publication-pdfs/aligning-and-integrating-proof-v5.pdf
- 52. Science Based Targets, Meet the companies already setting their emissions reduction targets in line with climate science (2020) https://sciencebasedtargets.org/companies-taking-action#table
- 53. Task Force on Climate-related Financial Disclosures, *TCFD Supporters* (February 2020) https://www.fsb-tcfd.org/supporters/
- 54. University of Cambridge Institute for Sustainability Leadership, *Measuring investment impacts: The Investment Impact Framework* (University of Cambridge, 2020) https://www.cisl.cam.ac.uk/business-action/sustainable-finance/investment-leaders-group/measuring-investment-impacts
- 55. L. Fink, A fundamental reshaping of finance (BlackRock, 2020) https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter
- 56. R. Eccles and S. Klimenko, *The investor revolution. Harvard Business Review* (May-June 2019) https://hbr.org/2019/05/the-investor-revolution

# **List of Figures:**

### **Figure 1: Business in Transition**

United Nations Environment Programme, GEO for Business, Adapt to Survive: what transformational change means for Business (Nairobi, 2021)

### Figure 2: Global Reported Natural Disasters by Type, 1970 to 2019

World Economic Forum, Shareable infographics: Top global risks 2007-2020 (Geneva, 2020). https://reports.weforum.org/global-risks-report-2020/shareable-infographics/

### Figure 3: Top Global Risks

United Nations Environment Programme, Decoupling Natural Resource Use and Environmental Impacts from Economic Growth, A Report of the Working Group on Decoupling to the International Resource Panel (Nairobi, 2011). https://wedocs.unep.org/bitstream/handle/20.500.11822/9816/Decoupling\_FReport\_EN.pdf?sequence=1&isAllowed=y

### Figure 4: How can we protect the environment, reduce poverty and maintain economic growth?

D. Loorbach, N. Frantzeskaki and F. Avelino, Sustainability transitions research: Transforming science and practice for societal change. Annual Review of Environment and Resources vol. 42, No.1 (2017). https://doi.org/10.1146/annurev-environ-102014-021340

### Figure 5: How transformative change is always about build-up and break-down J.C. van den Bergh,

United Nations Environment Programme, *Global Environment Outlook – GEO-6: Healthy Planet, Healthy People* (Nairobi, 2019). https://wedocs.unep.org/bitstream/handle/20.500.11822/27539/GEO6\_2019. pdf?sequence=1&isAllowed=y

### Figure 6: Global wind and solar installations

International Energy Agency, Data and Statistics: Explore energy data by category, indicator, country or region (2018) https://www.iea.org/data-and-statistics?country=WORLD&fuel=Energy%20 supply&indicator=ElecGenByFuel and https://www.iea.org/data-and-statistics?country=WORLD&fuel=Energy%20 supply&indicator=RenewGenBySource

### Figure 7: The circular economy—an industrial system that is restorative by design

Ellen MacArthur Foundation, The circular economy in detail (2017). https://www.ellenmacarthurfoundation.org/explore/the-circular-economy-in-detail#:~:text=A%20circular%20economy%20is%20a,the%20consumption%20 of%20finite%20resources.

### Figure 8: Economic benefits from a transition to circular economy in The Netherlands

Adapted from PBL Netherlands Environmental Assessment Agency, Opportunities for a circular economy (2019) based on TNO, Opportunities for the circular economy in the Netherlands (2013). https://kenniskaarten.hetgroenebrein.nl/en/knowledge-map-circular-economy/ce-benefits-the-netherlands/

### Figure 9: Why Invest in the transition to sustainable fisheries?

L. Holmes and others, *Towards Investment in Sustainable Fisheries: A Framework for Financing the Transition* (Environmental Defense Fund and The Prince of Wales's International Sustainability Unit, 2014). https://www.edf.org/sites/default/files/content/towards-investment-in-sustainable-fisheries.pdf

## **Figure 10: Nature Positive Economy**

United Nations Environment Programme, GEO for Business, Adapt to Survive: Business transformation in a time of uncertainty (Nairobi, 2021)

### Figure 11: A vision of a nature-positive future

United Nations Environment Programme, GEO for Business, Adapt to Survive: Business transformation in a time of uncertainty (Nairobi, 2021)