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The Zero Countdown – and Beyond

So, to cut to the chase, what should your board, C-suite, or senior management group do to manage risks – and seize the opportunities – created by the Zeronaut agenda? Here are some starter questions that you can pose to your team or wider organization.

If you took all the Zeronauts identified in previous chapters and locked them in a room until they came up with an action plan for a given business, economy, or government, they would likely agree on our overall framing: that we need to move from incremental to transformative system change, and that we must connect wider, dig deeper, aim higher, invest longer.

But what sort of narrative line might we hear if we were to take a single Zeronaut and ask them to sit down with a board, C-suite, or cabinet? My sense is that he or she might be well advised to adopt a countdown-to-zero approach. So, here's a working draft of how that might work.

10 Patience is the ability to count down before you blast off

I have no idea where this phrase originated, but – as a Zeronaut such as former Astronaut and Cosmonaut Jerry Linenger would attest – it offers hard-won wisdom. Too often, accelerated countdowns and take-offs end in grief, as in the *Challenger* shuttle disaster of 01986, analyzed to devastating effect (at least for NASA) by Richard Feynman.¹ We have to learn how to see what is hidden in plain view. Three of my favorite books here are by Edward Tufte, who has specialized in the analysis of how critical data are best presented – as in his review of the 02003 *Columbia* shuttle disaster.² The key point, as we begin the countdown, is to understand the big picture and likely trajectories before we stab the ignition button.

9 Having taken off as a species, we have landed in the Anthropocene

So, here's the really big picture. Until recently we were told to expect 9 billion people by 02050, with a peak of just over 10 billion – but the UN has now upped the estimates, under certain assumptions, forecasting as many as 15 billion people by 02100. Whatever the actual numbers, welcome to the Anthropocene Era – in which our species is the dominant influence on our planet (see p.xx). The implication: unless we embrace 1-Earth mindsets, behaviors, cultures, and paradigms, we will crash both the biosphere and our civilization. A critical first step will be to see the period to 02020 as our Detox Decade, a period of civilizational rehab (see p.61).

Some initial questions: how would your economic or business models play out in a world of 9 or 10 billion? What would happen if sharply reduced carbon, water, toxic waste, or other footprints became the focus of policy and, ultimately, societal expectations? (or vice versa.) What would a zero impact growth model look like? What would be the risks – and where are the likely opportunities? What sort of time scales might be involved?

8 Get ready to break the Sustainability Barrier

With no particular intention of doing so, we are inflicting a gigantic Ponzi scheme on future generations (see pp.32–3). It is time to break the Sustainability Barrier by embracing the fundamental intergenerational task of winding down the dysfunctional economic and business models of the nineteenth and twentieth centuries – and evolving new ones fit for the twenty-first and twenty-second centuries. One key part of responding to the challenge will involve our finding new ways of cross-generational working and new methods of cross-generational accounting and valuation.

Some initial questions: what are we already doing that maps onto this trajectory? Where in today's world do we already see key actors moving to break the Sustainability Barrier in their markets or geographies? How successful have they been? What are the key constraints they face – and how have they sought to circumvent them? What might we learn?

7 Don't wait for a Sputnik moment

Our politicians – and societies – are most likely to mobilize when there is a clear and present danger, as when the Ozone Hole opened up over our heads during the 01980s. The science suggests that we must cut carbon emissions more than 100-fold (see p.9). Instead of waiting for Sputnik moments, we need to start yesterday.

Some initial questions: what would be a likely Sputnik moment in our markets or geographies? What sort of early warning signals might we expect to see? Have we seen evidence of similar challenges emerging elsewhere? How well prepared are we for black swans, green swans, or even zero swans?

6 Think the unthinkable, do the undoable

Many CEOs say that they have embedded sustainability, but they are usually talking about corporate citizenship, with a few tweaks. In an era where we face the intensifying challenges of peak oil, peak water, peak fish, indeed (as Jeremy Grantham of GMO put it) peak everything, thinking and acting in the old ways could well prove suicidal. Like the late, great Ray Anderson of Interface (see p.144), we must embrace Mission Zero – climbing toward a different peak, that of Mount Sustainability. This means embracing transformational change – going wider, deeper, higher, longer, and, critically, together (see point 2, below).

Some initial questions: what would Mission Zero look like in our organization? How far up Mount Sustainability are we? Should we build out from existing foundations – or start anew? What partnerships – existing or new – will we need to succeed? What’s the competition up to on all of this? Are there players on the edges of our world, as currently defined, who could explode into our space with new mindsets, technologies, business models, or branding? How might we benefit from – and contribute to – initiatives such as the Cradle to Cradle community, ZERI, or the Zero Hub?

As I finished the book, news came in that Kraft had achieved “zero waste” at 36 food plants around the world. It’s happening.

5 Look at our common future through the lens of zero

The Zeronauts is no more – and no less – than a thought experiment. But it underscores how powerful such thought experiments can be. Take the case of Herman Miller: pursuing zero, it has driven down volatile organic compound (VOC) emissions by 93 percent, hazardous waste by 95 percent, and solid waste by 88 percent (see p.163). Around the world, companies are announcing zero (or net zero) targets. And a growing number have already hit their zero targets in some areas. Some Zeronauts, like Matthew Wright of Beyond Zero Emissions, aim to go beyond, as it says on the box.

Some initial questions: who is already doing this sort of thing in our markets? Why are they doing it – and how are they doing? How might we use such thought experiments in our executive training or in induction processes for new employees? Who among our key stakeholders will be attracted by this – and who might not be? How do we best manage those conversations?

4 Support your local Zeronauts

Most Zeronauts are still considered unreasonable, indeed sometimes crazy, because of their outlandish ambitions. Our first stab at a Zeronaut 50 Roll of Honor (see Box 3.1 on pp.44–6) begins the task of putting faces to this emerging agenda. It spotlights the inventors, innovators, entrepreneurs, intrapreneurs, investors, and managers who are promoting real wealth creation – while driving adverse environmental, social, and economic impacts toward zero. But for this movement to build consistently over decades, zero-based thinking must also become endemic in the thinking and practices of investors, policy-makers, regulators, politicians, and educators. Dig into the science with people like Zeronaut Michael Pawlyn, who helped design Britain’s Eden Project.

Some initial questions: who among the Zeronaut 50 do we already know? Who would we want to get to know? Who might we support – and how? What might we learn in the process? How is the process of engagement best handled? Again, what sort of time scales and resources are likely to be involved?

3 Identify, map, and travel the Pathways to Zero

When you don’t know where you’re going, they say, pretty much any road will take you there. Our five-stage Pathways to Zero model (see Chapter 6) offers a guide for those embarking on the journey toward real system change.

Some initial questions: if you take different areas of the business, where are we on the Pathways to Zero journey? Do we have a clear idea of how we are going to move into higher stages – and, ultimately, toward stage 5? What stage 4 partners would be needed to create the necessary market ecosystem(s)? What would be our role in creating such ecosystems? And what would stage 5 look like for our markets or geographies?

2 Join forces with fellow travelers

There is a growing need for innovators to convene, share notes, and work on new blueprints, frameworks, and solutions. That’s why we are co-evolving the Zero Hub with Deloitte Innovation (see pp.12–13). If successful, we envisage a global network of such hubs: what President George W. Bush would probably have dismissed as an Axis of Zero.

Some initial questions: to what extent are our existing alliances, federations, associations, or networks already addressing these issues? Can we believe what they say on this score? What can we do to ensure that they raise their game? Are there new players whom we should engage? Who in our organization is best placed to do this?

Keep an eye out for the work of Jeremy Rifkin, with his focus on what he calls the “Third Industrial Revolution” – based on the emergence of an “energy Internet”.

1 Beware of becoming a Zero zealot

Do the analysis. The zero option is but one among a number, and is not always automatically the best way forward. Be thoughtful, self-critical, and disciplined in deciding your approach. The last thing we want to see is a wave of CZOs (chief zero officers). As the almost-inevitable Zero Rush builds, beware zerowashing. There will be a growing temptation to make misleading claims. If market confidence is to be maintained, such claims need to be smacked back, hard.

Some initial questions: where does zero fit into our existing sustainability – and wider – ambitions, targets, and toolkits? Where are we already using zero or net-zero targets? Have we considered doing so, but decided not to; if so, why? Are we – or competitors – already making related claims? If so, how are they being received? If we were to communicate in this space, who would be our key audiences, what would be our core messages, and how would we know if our communications were successful?

0 Use zero to boost your future quotient – then move beyond it

In order to power the necessary transformative, systemic change, we must develop our future quotients (FQs) (see p.228). Take Zeronaut James Hansen, of NASA, who produced a book designed to make us all think of our climatic futures, *Storms of My Grandchildren*.³ We need FQ, not just intelligence quotient (IQ) or emotional quotient (EQ): we should think in terms of the future quo, not just the status quo. Zero offers a powerful key to unlocking tomorrow’s growth markets. Perhaps we should talk of zeronomics? But to have any chance of making the twenty-first century our best yet, we must also eventually move well beyond zero, designing our technologies, businesses, economies, and civilization so that they are no longer net destructive, but actively restorative. This is what emerging disciplines such as natural capitalism, cradle-to-cradle design, and biomimicry are all about.

Beware of all market research forecasts, but note that Pike Research predicts that the net-zero buildings market will reach \$1.3 trillion by 2035.⁴

Some initial questions: have we put our team or organization through anything like the future quotient process? If so, with what results? If not, would it be worth trying? Where would be the best place to pilot this? Could it help to reanimate or redirect our corporate social responsibility (CSR), sustainability,

innovation, or other initiatives? How would it fit in with existing human resources, strategy, or other mainstream activities? Should we go top down (e.g. board, C-suite) with this – or bottom up? How would we make the best use of the results? Who else is doing this – and how might we learn from (and potentially build on) what they are doing? And what might a Beyond Zero scenario look like?

Whatever our answers to such questions, the time has come to punch through the Sustainability Barrier – and to support and learn from the Zeronauts who are leading the charge. For more on their work, and on the evolving zero agenda, please visit www.zeronauts.com. And please do get in touch: my email address is john@volans.com. Remember what legendary investor Warren Buffett advised: “if you want to go fast, go alone. But if you want to go far, go in company.”



Figure 9.1 The Royal Society of Arts stamp to celebrate the Zero Waste initiative, 02004