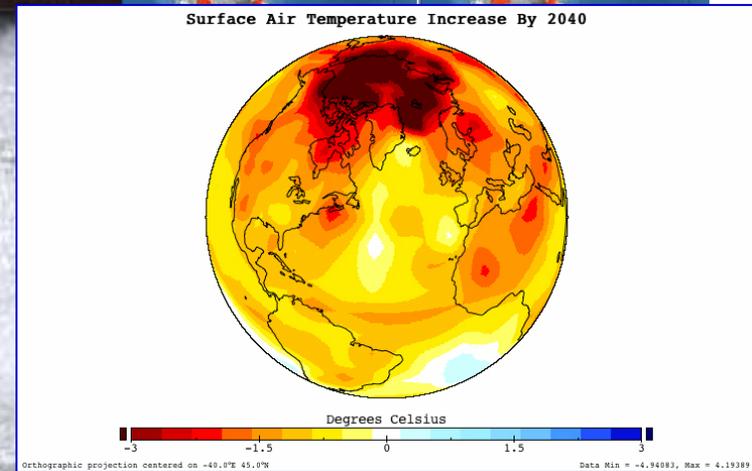
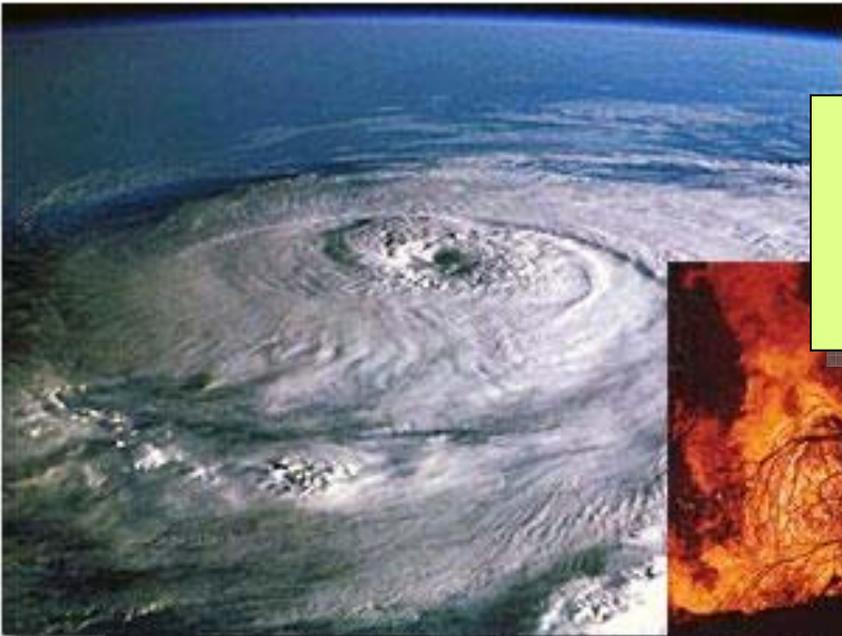


The Adaptive Imperative Facing up to the **real** challenges of our time



International
Futures Forum

Developed by Anthony Hodgson
IFF member and Director, Decision Integrity Limited

“Humankind is on the cusp of a planetary emergency. We face an ever-greater risk of a *synchronous failure* of our social, economic and bio-physical systems, arising from simultaneous, interacting stresses acting powerfully at multiple levels of these global systems.”

Thomas Homer-Dixon
Author: *The Upside of Down*

"I think the odds are no better than 50/50 that our present civilisation will survive to the end of the present century."

Sir Martin Rees
Astronomer Royal
Author: *Our Final Century*



The Message

We are facing a Titanic Predicament

Unaware or unregarding, we are not making it

We need to see things in a new frame

The challenge is THE ADAPTIVE IMPERATIVE

The response is to create THE RESILIENT SOCIETY



The Purpose of This Document

- To raise awareness that, important though climate change is, we face a far more complex set of interacting problems
- To point out that the very urgency for action on climate change mitigation could distract us from this larger complex of challenges and catch us out on a far larger scale than we might expect
- To encourage a programme of creative and innovative experimentation to prepare and be able to survive and thrive in a world where discontinuous change is the norm



Where Current Trends Seem to be Leading Us

- Energy security meets climate change – peak oil combined with failure of carbon emissions mitigation
- Widespread undrinkable or unavailable water
- China, India and Russia challenging US supremacy
- An accelerating gap between food demand and food production
- Financial meltdown combined with the bankruptcy of global insurance unable fund climate disaster recovery
- Climate driven super-migration from droughts, floods, inundation and food scarcity



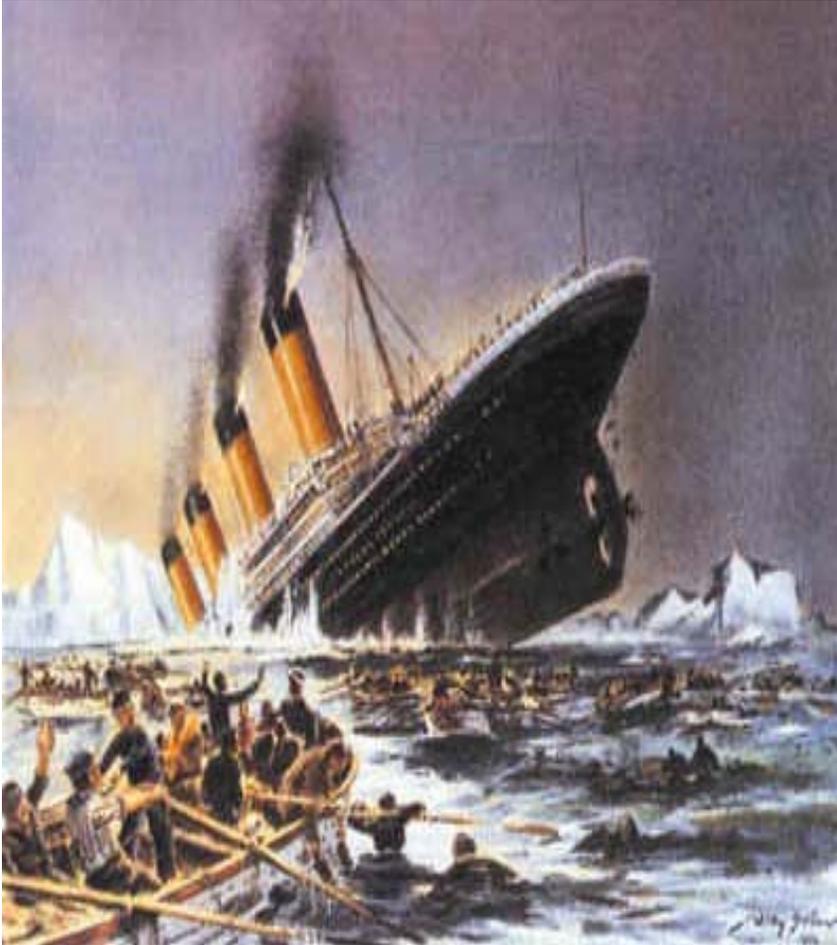
“The few things we do know about the response of the Earth to our presence are deeply disturbing. Even if we stopped immediately all further seizing of Gaia’s land and water for food and fuel production and stopped poisoning the air, it would take Earth more than a thousand years to recover from the damage already done, and it may be too late for even this drastic step to save us.”

James Lovelock

Author: *The Revenge of Gaia*



This is a Titanic Predicament



Are we assuming too easily that our current policies and actions are “unsinkable” and that we can fix the complex of interacting global problems?

Are the dangers to our survival really solvable within our current approaches?



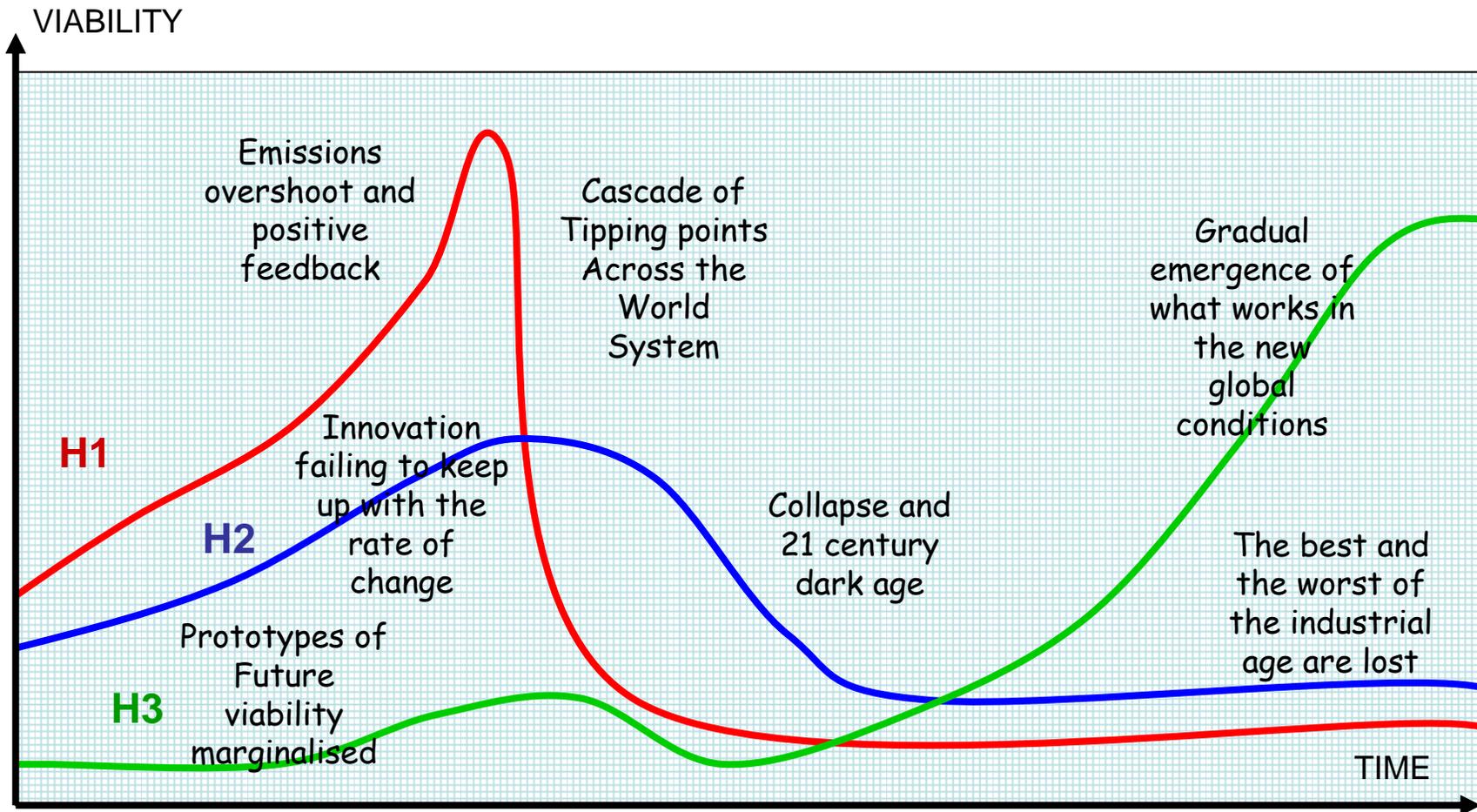
“Think of the 21st century as a deep river canyon with a narrow bottleneck at its centre. Think of humanity as river rafters heading downstream. As we head into the canyon, we’ll have to cope with a rate of change that becomes much faster and rougher – a time when technology will accelerate at a phenomenal rate. ... At the narrow part of the canyon, the world’s population will be at its highest and the world’s resources under their greatest stress. Because the canyon is going to get rough, there are major uncertainties about what the peak number of humans will be.”

James Martin

Author: The Meaning of the 21st Century



The story if we go on the way we are



In this story the supremacy and domination of **Horizon 1** paradigm creates runaway success but at the expense of ignoring some critical conditions. The society has become brittle and is vulnerable to unexpected change and discontinuity. Failure to respond coupled with weak innovation or ingenuity in **Horizon 2** leads to sudden non-linear collapse. **Horizon 2** is unable to make up for this.

In the background **Horizon 3** has the seeds of a new paradigm which has the potential of viability under the changed circumstances . It is largely ignored, even suppressed. However, it continues to develop slowly and after the initial upset and chaos of the collapse (which may be a long emergency) demonstrates its ability to match the new conditions and emerges as the next viable paradigm. The costs are very high.



Our serious learning disabilities

1. We think linearly and reductionist in a non-linear complex world. Policy and solutions are inappropriate.
2. The skill and power of vested interests in holds onto the status quo and intensifies the wealth gap.
3. We become captivated by “solution” which are myths that don’t actually work. We are caught in a consensus trance.
4. The middle classes are trapped defensive routines that block fundamental change.
5. The shock of recognising the seriousness and complexity of the challenge provokes neurotic and psychotic responses rather than transformative ones.



“The underlying causes of overshoot are always the same. First there is rapid motion, action, or change. Second there is some sort of limit or barrier, beyond which the motion or action or change should not go. Third there is difficulty in control, because of inattention, faulty data, delayed feedback, inadequate information, slow response, or simple momentum. ...Human society has overshoot its limits, for the same reasons that other overshoots occur. Changes are too fast. Signals are late, incomplete, distorted, ignored, or denied. Momentum is great. Responses are slow.

Donella Meadows, Dennis Meadows, Jorgen Randers
Authors: *Beyond the Limits – Global Collapse or a Sustainable Future*



Inconvenient truths are denied

- Denial is a defense mechanism in which a person is faced with a fact with painful implications, rejects it instead, insisting that it is not true despite what may be overwhelming evidence.
- Since there are extremely disruptive and painful implications of the current cluster of global problems, defensive denial is to be expected.
- It often takes the form of declaring “it doesn’t exist” or “it is all too complex and uncertain”
- We need help through the following stages to get through and assimilate the impact to rally our creative resources
 - Denial - *"It can't be happening."*
 - Anger *"What's it got to do with me? I can't do anything"*
 - Bargaining *"Just let me carry on as usual until I sort myself out."*
 - Depression *"This all seems very difficult and hopeless?"*
 - Acceptance *"Let's get to grips with this in a positive creative way"*



“The decade from 2030 will see a remarkable and dangerous confluence of world events and trends – a spike on the graph paper of life that will influence humanity for good or ill as never before. Combating the worst effects of this will require urgent action, informed by the clearest possible understanding of where we are now and where we might go.”

Colin Mason

Author: *The 2030 Spike – countdown to global catastrophe*

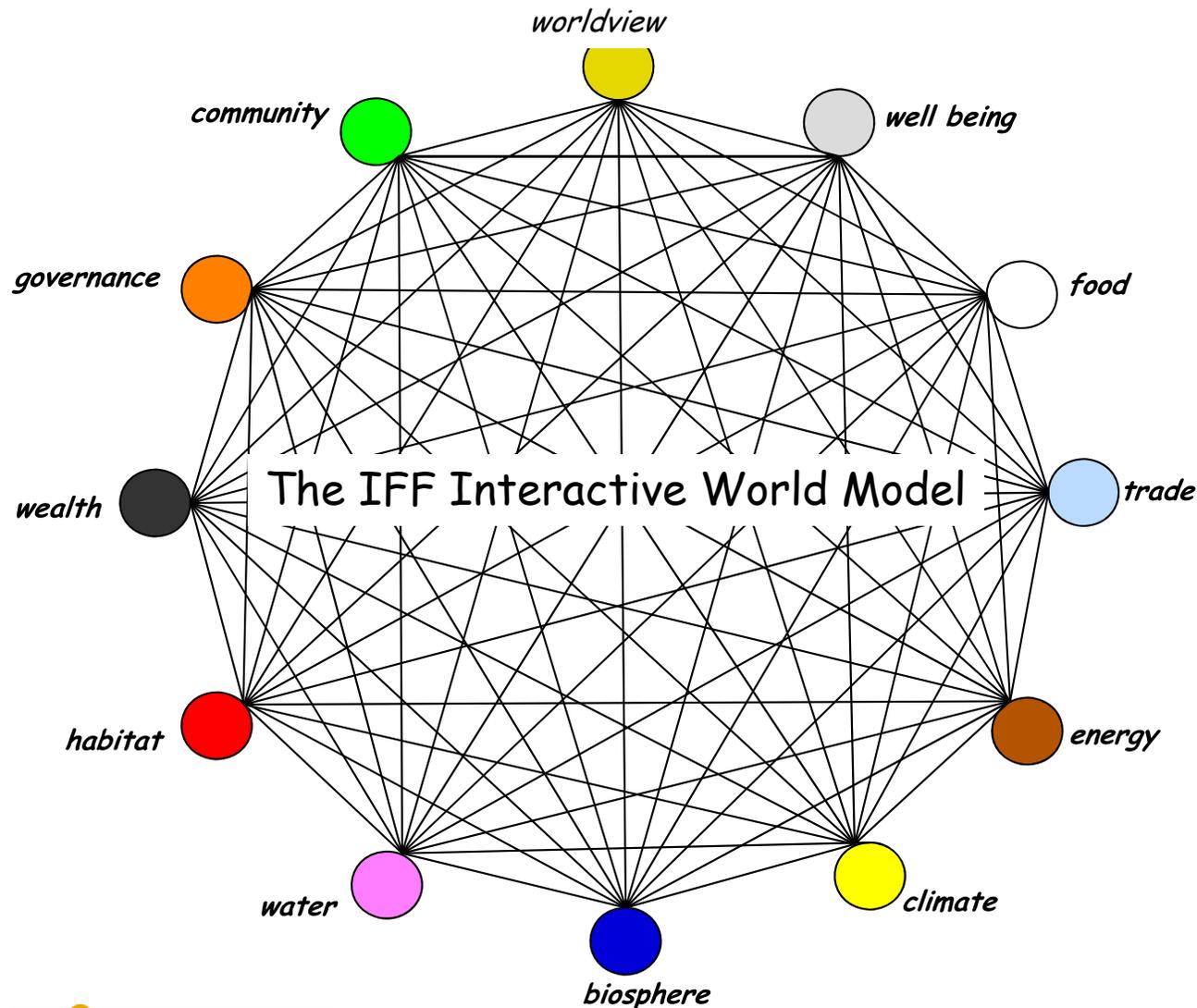
“As the industrial story ends, the greater saga of mankind will move into a new episode, the Long Emergency. ... We will not believe that this is happening to us, that two hundred years of modernity can be brought to its knees by a worldwide power shortage. The prospect will be so grim that some individuals and groups (as in nations) may develop the symptoms of suicidal depression.”

James Howard Kunstler

Author: *The Long Emergency – Surviving the converging catastrophes of the twenty-first century*



A new learning framework – The IFF World Game



The world system is massively inter-connected. IFF have developed an Interactive World Model which serves as the basis for a new kind of *World Game*

This provides a platform for both expert and community groups to communicate, share learning and integrate action towards creating *The Resilient Society*

The World Game can be customised to suit a wide range of needs.



The Interacting Web of Synchronous Problems

Resilience Factor - NURTURING HUMANITY

WORLDVIEW

Breakdown of spiritual awareness and dislocation from higher meaning and purpose

WELL BEING

Severe escalation of debilitating and fatal illnesses, pandemics and toxic cancers

COMMUNITY

Massive increase in stress and mental illness leading to large scale psychotic and *neurotic responses to crisis*

Resilience Factor - TRANSFORMATIVE LEADERSHIP

GOVERNANCE

Breakdown of governability through geo-political crisis, civil unrest, migration and failures in law and order

WEALTH

Severe collapse of monetary and insurance systems – wipe out of monetary wealth

HABITAT

Disruption of city footprints supporting half of humanity (> 3 billion people)

Resilience Factor - EQUILIBRIUM COMMERCE

FOOD

Crop failure from shortage of oil and from climate change

TRADE

Trade infrastructure severely damaged by high energy costs, freak climate events and resource wars

ENERGY

Peak oil followed by peak gas exacerbated by increasing demand

Resilience Factor - INTEGRATING NATURE

CLIMATE

Runaway heating due to release of methane from tundra and ocean

WATER

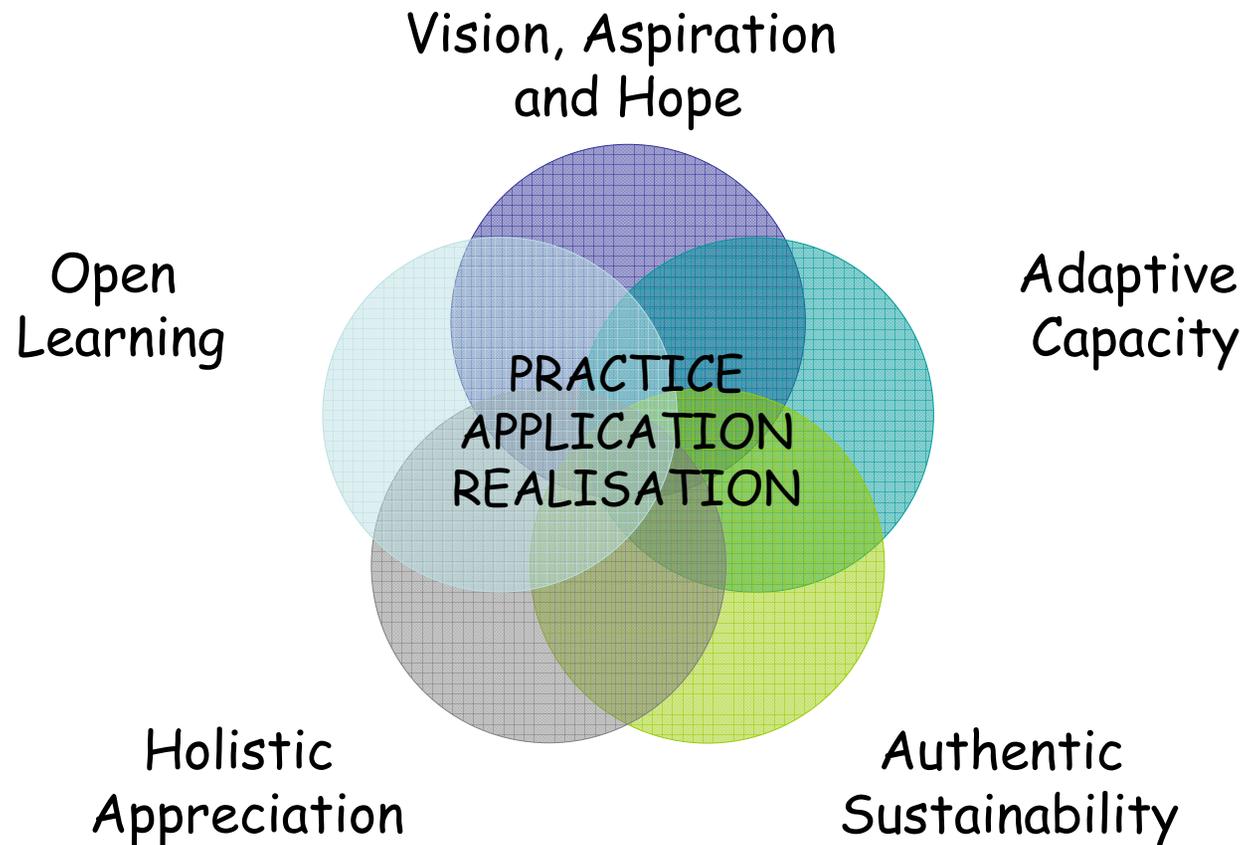
Combination of irreversible aquifer depletion and poisoning

BIOSPHERE

Massive species extinction and biome destruction



A complex world needs resilient communities



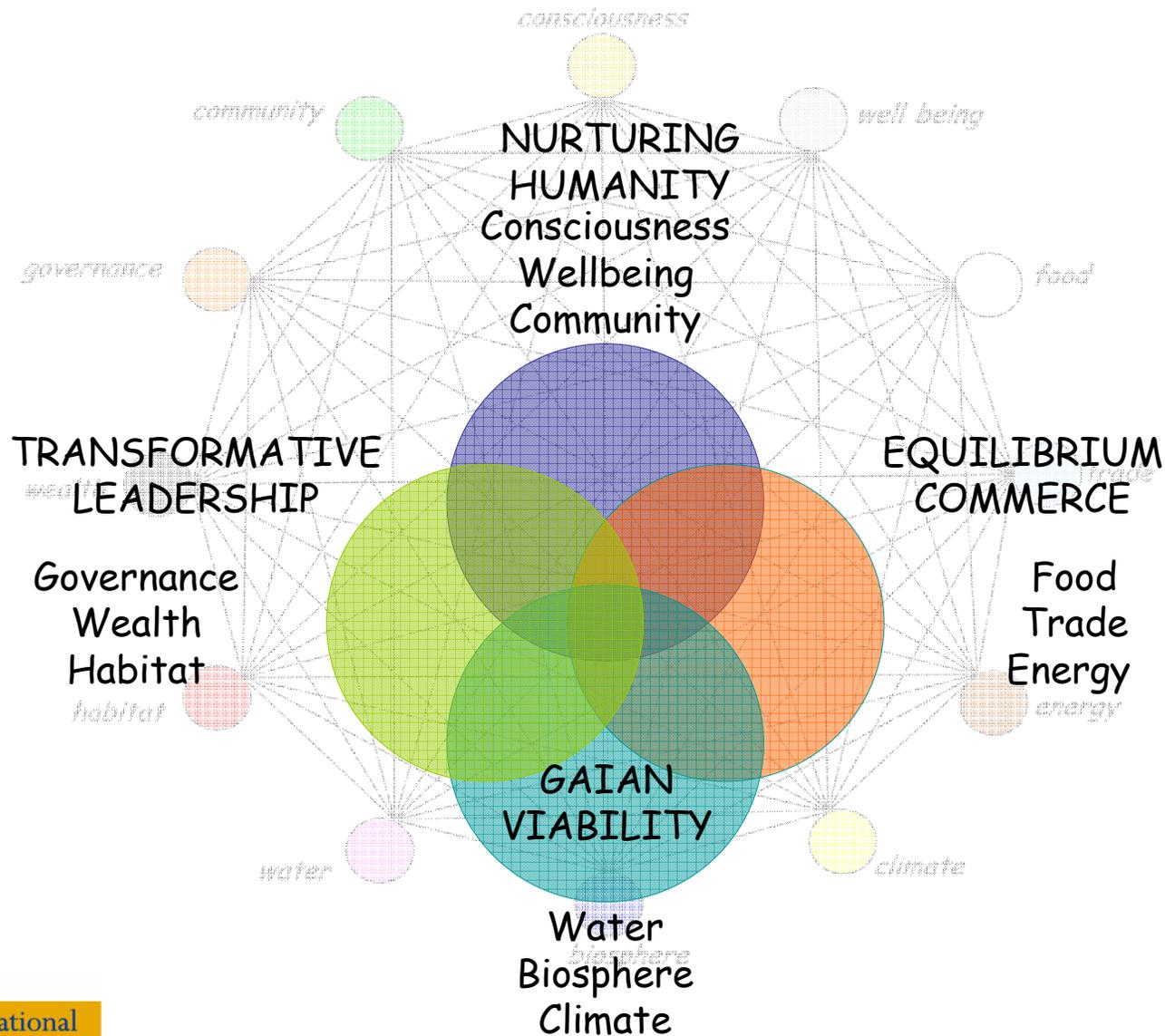
“Our failing environmental and social systems create the imperative. The global revolution in transportation and communication is creating the opportunity. Leadership in actualizing the possibilities is coming from people everywhere who are making the choice to walk away from Empire’s false promises and engage in the work of turning our cultures, economies and politics from dominator to partnership relations.”

David C. Korten

Author: *The Great Turning – From Empire to Earth Community*



Four areas of strategic response for resilience



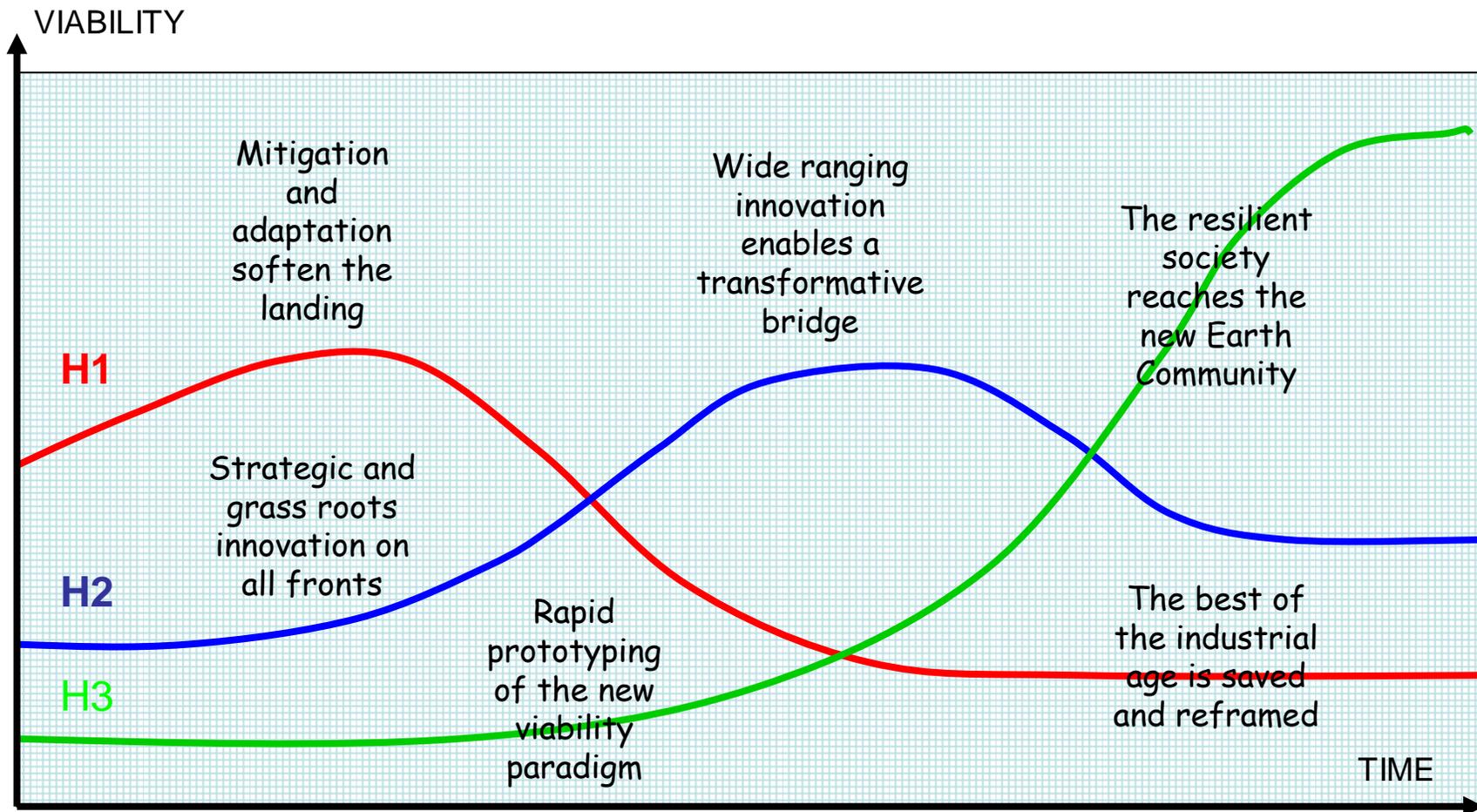
“Can we create a more adapted world? This question can be more precisely stated. Can the power- and wealth-oriented civilization of the Industrial Age be effectively and sufficiently transformed to ensure the survival and well being of the entire human population?

Ervin Laszlo

Author: *The Chaos Point – The World at the Crossroads*



The story if we transform our communities



Horizon 1 is a current paradigm that has worked until changes in the environment plus its own diminishing returns put it on a curve of decline. Meanwhile **Horizon 2**, aware of this in diverse ways is applying ingenuity and innovating more effective approaches which eventually overtake.

In the background, a completely new paradigm is emerging as **Horizon 3**. It appears for a long time to be marginal but since it matches better the new environment it eventually takes over. The **Horizon 2** innovations have served as enabling the transformation. They are harnessed to bridge the transition and reduce the human and economic costs of transition.



Combining Mitigation and Adaptation

Mitigation

- Reduce the human activity which is driving the crucial areas towards unknown and risky tipping points
- Problem – there is already inertia from past actions that is putting the earth-human system at risk

Adaptation

- Modify the human society from basic infrastructure to psychological attitude to create resilience
- Problem – humanity is in a state of both ignorance and denial with extreme learning difficulties in this area



“In the best instance, the next generations will find themselves in a low energy regime in which moral lessons from the fossil-fuel era and its demise will have been seared into cultural memory. ... they will have discovered that growth is not always good, that modest material goals are usually better for everyone in the long run than extravagant ones, and that every technology has a hidden cost. There is no free lunch.”

Richard Heinberg

Author: *Peak Everything – Waking up to the century of decline in earth's resources*



2 The Resilience Challenge: From Factor 4 To Factor 100

Now, in 2008+, to realise a resilient society globally without a catastrophic population reduction of possibly one third (2 billion plus people), we need to direct our efforts towards achieving

FACTOR ONE HUNDRED!

that is cutting consumption to **one tenth** and increasing efficiency **ten fold**.

This will require extraordinary ingenuity, innovation and co-operation. It can only be achieved if we let go of the status quo and foster positive imagination in creating the Resilient Society.



“In industrialised countries, the current resource productivity must be increased by an average of a **FACTOR of 10** during the next 30 to 50 years. This is technically feasible if we mobilise our know-how to generate new products, services, as well as new methods of manufacturing.”

1994 Declaration of the Factor 10 Club

“Factor Four, in a nutshell, means that resource productivity can – and should – grow fourfold. The amount of wealth extracted from one unit of natural resources can quadruple. Thus we can live twice as well – yet use half as much.”

Ernst von Weizacker, Amory Lovins and Hunter Lovins

Authors 1997: Factor Four – Doubling Wealth, Halving Resource Use



3 Taking Up the Challenge: A Resilient Society

- recognises the principles and the practical implications of *The Adaptive Imperative*
- strives to innovate its own and adopt from elsewhere approaches across the Interactive World Model that work towards Factor 100
- recognises that there will be shocks and discontinuities and evolves life-styles and infrastructure for *frequent interruption*, that is no longer 24X7 and “just in time” distribution of essentials
- encourages its communities to join in creative collaboration in a positive spirit of wellbeing, through spiritual, artistic and technological achievement.
- adopts an open approach to exchange and sharing learning planet wide through networked communities of practice
- respects the Earth Mother, Pachamama, the Gaian System as a super-ordinate living system and sustainer of life, not resource for exploitation



“To act well, we need to experience the Earth not as ‘nature’ out there, nor as ‘environment’ that is distinct from us, but as a mysterious extension of our very own sensing bodies that nourishes us with an astonishing variety of intellectual and aesthetic experiences – with the roar of the sea and with the wonderful sight of the moon reflected in a calm lake. Right action requires us to live into the body of the Earth, so that we feel just as comfortable with the air, water, rocks and living beings that are the life of that wider body as we do in our human-made environments.”

Stephan Harding

Author: *Animate Earth – Science, Intuition and Gaia*



“How we look at things and how we focus on them has consequences, which are much further and deeper than we are usually aware. So, if we collectively focus and affirm the negativity swirling in our world, we help to give it more force. But, if we collectively focus and affirm the Light of Wisdom in joy, sharing and right action, we help create a greater force of these qualities in humanity.”

Juanita Skolimowski

Quoted from: *Towards a New Renaissance*
Scientific and Medical Network



What do you see as a resilient society?



Are you moved to make your contribution?