

# Getting to a Sustainable 2050

This PowerPoint deck is *not* my full lecture. I'm sending these nine slides as a kind of preview, to help you decide whether you want to see the whole deck. There's a URL for downloading the full lecture on the last slide.

*Why?* Sometimes I receive a set of slides across the internet that I can't understand – because they were meant to be accompanied by some explanation which the speaker gave at the time of the talk. So, I decided to add some comments like this to indicate some of the things I said in the lecture.

I hope it helps you understand my message a little better.



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- 40 year vision
- 400+ milestones
- 40+ Must haves
- 40+ Must not happens

from a 29 company task force

*of the*

**World Business Council  
for Sustainable Development**

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# The process of the Vision 2050 project

- Over an 18 month period, a group of strategists from 29 very large, global companies\*
- took a hard look at the feasibility of the world achieving a sustainable 2050
- recognized that we are already consuming at the rate of one and 1/3 earths and heading for an unsustainable two earths by 2030
- developed a set of 400 milestones along ten paths and 70 success measures to tell if we're getting there
- and outlined a pathway that suggests one way that seems possible to meet these success measures

\* The World Business Council for Sustainable Development represents 200 major transnational corporations: 1/2 are Fortune 500s

Here's the reason why I think it is worth your time to read through this briefing.

In my view, there is reason for considerable doubt as to whether the world will get to the year 2050 in sustainable shape. So, it is important to pay attention to any serious project that has examined these prospects, and especially one that provides a possible pathway to get to 2050 - sustainably.



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## 29 companies joined in the task force



These 29 companies, representative of the 200 members of the WBCSD, formed the task force. They provided additional funds for the study and seconded strategists part time over an 18 month period to the Vision 2050 project. They were joined occasionally by expert specialists from think tanks and universities.



# The WBCSD Sustainable Vision 2050 Project Conclusion:

Challenges..... **huge**  
Risks..... **high**  
Changes..... **urgent**  
Vision 2050 .... **compelling**  
Pathway..... **feasible**  
Actions..... **necessary**  
Opportunities.. **many**

*(for business)*

*More complete summary in the full slide deck. see URL at end of this preview*

The task force did not think it would be easy or without significant risks. What they did conclude was that the *changes we need to make in the global economy, governance, and society are far more urgent and challenging than had been originally thought.*

I explain why this is the case in the full version of this briefing which you can download.



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## One of the products of the Vision 2050 project - an info-mural of how we can get to a sustainable 2050



In addition to helping with the research and analysis, for the project, I created - as its synthesizer and visualizer - a large info-mural (shown here). One of my jobs was to capture all of the vital milestones that we must have to get to the Vision of 2050 that the project task force agreed upon. The mural contains the sequences of over **400 individual requirements for achieving sustainability** grouped roughly in the four decades leading up to 2050. These "idea chunks" enable us now to see a good bit of the whole picture. (There are a few notable missing elements, but these can be added this year.)

It provides a **tool for thinking** comprehensively, flexibly, **strategically**, and most of all, shows us how our actions in multiple capacities will help us achieve these sustainability goals



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# GOVERNANCE - Enable transformations in global economy and

## Growing awareness of need to cooperate

**Major collection of international agreements on climate and energy**  
Not necessarily treaties, but at minimum bilateral and multilateral agreements



International governance begins to shift from treaties to cooperative issue networks and more frequent trust-building summits and mini-summits. Opportunities from governments, NGOs, UN and business collaborate on solutions.

**Big risk**  
International terrorism networks increase



**Big risk**  
Massive rise of international drug and crime organizations



**MAJOR ECONOMIES MEETING (MEM) summit meets often**

Probably necessary for economy to be "on track" for 2050  
**A more effective summit of the Major Economies begins to meet on a quarterly basis**  
Discusses existing and potential global

# PEOPLE: VALUES, BEHAVIOURS, AND DEVELOPMENT

## Eco-awareness spreads rapidly

**Required to be on track for a sustainable 2050**  
Universal primary and secondary education has begun to shift fertility rates to around replacement levels. More women are educated and engaged in economic activities, leading to improved health of women and their children

Eco-aware consumers lead selection of products, services, and leisure activities based on efficiency, ecological and social impacts, reinforcement of individual work-life balance, community needs, and global resilience



Somehow during this decade New "people and planet" movement leaders emerge. Many social actors take responsibility for deeper "ecological-awareness education" to encourage changes in perceptions and behaviour by the end of the decade. New measures of personal success beyond financial status become more popular



# AGRICULTURE - Feed 9 Billion People by 2050

## Doubling & tripling of yields

**Required to be on track for a sustainable 2050**  
To feed 9 billion people by 2050, food, feed, fibre, and fuel output must increase two-fold, growing 2% annually without increasing the negative environmental impact and if possible not use any more land for agriculture.

**Assumption: Better use of freshwater.**  
Most efficient way of increasing the efficiency of water use in agriculture is through increasing yields and requires extending the maximum yield per drop.



**Required to be on track for a sustainable 2050**  
Asian, Pacific water efficiency doubles



**With the successful completion of the WTO Doha round, large agricultural subsidies are discontinued boosting production in Latin America, Eastern Europe and Africa**

**2nd generation biofuels are market.**  
Cellulosic ethanol and other advanced biofuels greatly improve fuel efficiency, lower air emissions, and avoid land conversion, carbon footprint

# FOREST - Sufficient timber and fuel for 9 billion people

## Global action on deforestation

**Required to be on track for a sustainable 2050**  
The United Nations Framework Convention on Climate Change (UNFCCC) releases the Reducing Emissions from Deforestation and Forest Degradation (REDD+) report. Without REDD, the 2 degree C climate stabilization goal cannot be met

**Carbon storage benefits of wood products are recognized in carbon markets**

**Approx. Amount of Carbon Stock in World Forests**

Stock	2004 carbon stock
Planted forest carbon stock	24 Gt
Primary forest carbon stock	182 Gt
Natural forest carbon stock	180 Gt

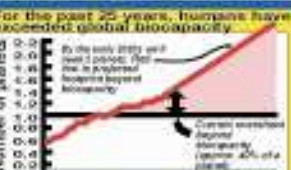
**REDD+ in Action**  
Total amount of carbon stored in forests is 298 Gt. 23 Gt is stored in planted forests. 275 Gt is stored in natural forests. 23 Gt is stored in planted forests. 275 Gt is stored in natural forests.

**REDD+ in Action**  
Major actions addressed by REDD+ begin to be implemented:  
- Provide financial incentives to local people for conservation and expansion of ecosystem services from primary and modified natural forests.  
- Procedures for setting emissions levels  
- Methodologies for measuring, reporting and verification  
- Processes to promote the participation of indigenous peoples and local communities

# ECOSYSTEMS & BIODIVERSITY - Maintain and restore

## Natural literacy spreads

**This will take time, but is required to be on track for a sustainable 2050**  
**Improved NATURAL LITERACY - Increased knowledge and attention on ecosystem services**  
A range of in-depth and comprehensive multi-year studies have deepened our understanding of the functioning of the 4.5 range of ecosystem services. Widespread media attention of such studies has contributed to a greater focus on the protection and enhancement of ecosystem services.

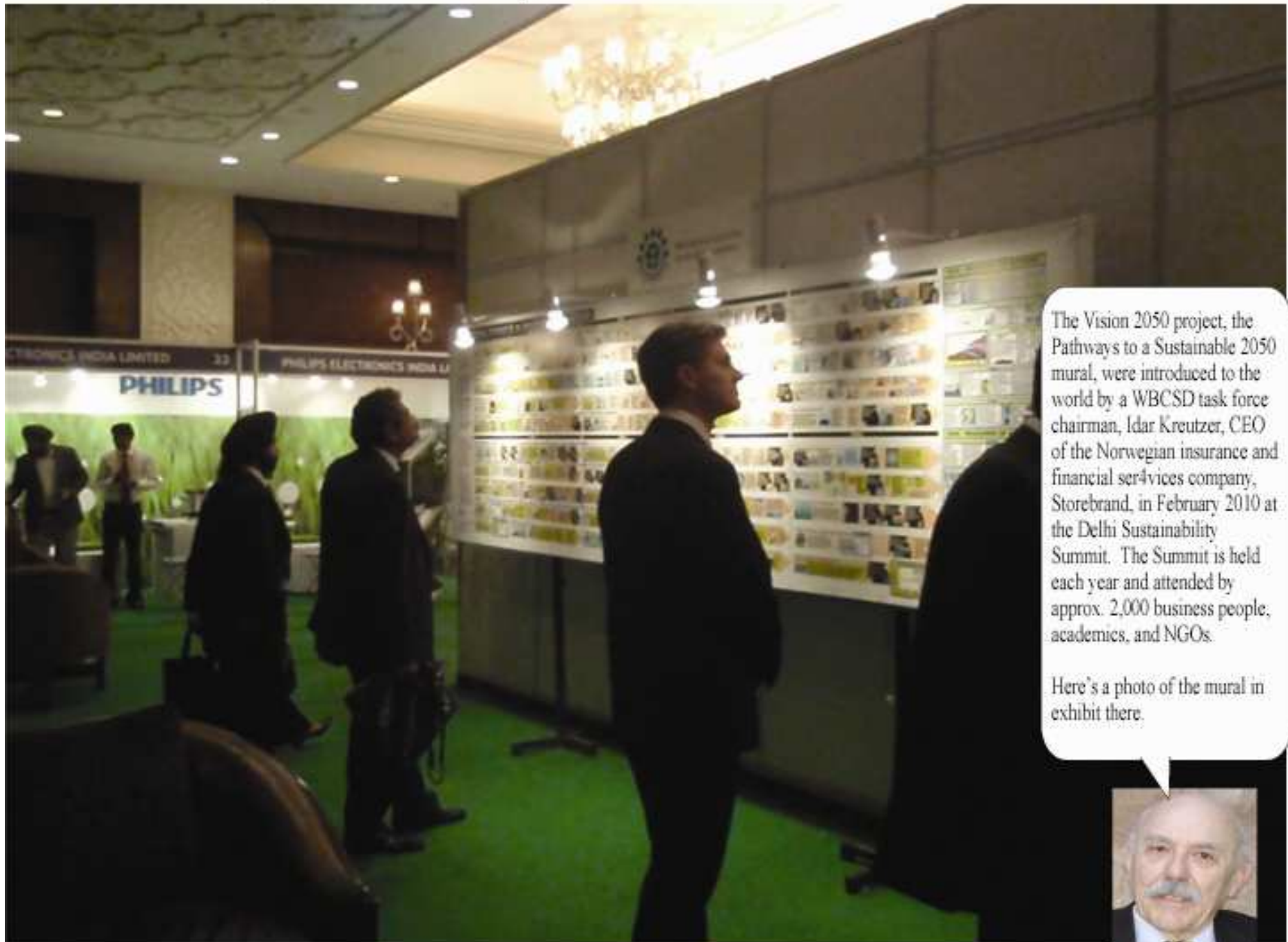


It might be a good idea for me to zoom in on a part of this large info-mural just to give you a taste of what a visualized synthesis looks like. Here's part of the bottom left-hand side of the mural. If you'd like to see more, download the whole presentation. URL is on the last page of this preview slide deck. As you can see it's not just a pretty picture, but uses icons and other visual devices to help you navigate quickly and easily through the very complex set of milestones, must haves, and must not happens. As such it can provide a "standard" reference model for assessing how we're doing in moving toward a sustainable 2050.



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## Delhi Sustainability Summit - February 2010



The Vision 2050 project, the Pathways to a Sustainable 2050 mural, were introduced to the world by a WBCSD task force chairman, Idar Kreutzer, CEO of the Norwegian insurance and financial services company, Storebrand, in February 2010 at the Delhi Sustainability Summit. The Summit is held each year and attended by approx. 2,000 business people, academics, and NGOs.

Here's a photo of the mural in exhibit there.



## Bob Horn helps organizations...

... understand complex, messy issues with analysis, strategy, and facilitation.

All of the following engagements and others have in common visual-based tools to help organizations deal with wicked problems and messy policy situations. We have created visual panoramas of many kinds for addressing different phases and aspects of issue understanding and development.

Recent projects have included:

- Vision 2050 – World Business Council for Sustainable Development, Geneva
- Radioactive waste disposal for Nirex (UK government agency)
- Avian flu pandemic scenario for PanDefense 1.0 conference
- Climate change and energy security for British Foreign Office
- Climate-Energy issues for International Futures Forum
- Research management, NASA
- Youth programs, Carnegie Trust (UK foundation)
- Global mental health (Davos)
- Public mental health mess, Portland, OR task force
- Elderly and disabled mess, Alameda CA task force
- Strategy workshop, Department of the Environment, Province of Alberta, Canada
- Emerging workforce dilemmas, California Workforce Association
- Health issues, United Methodist Church USA
- Visual capability building, Foresight Canada



## *Further information and action*

IF YOU ARE INTERESTED IN USING THE PATHWAY TO A  
SUSTAINABLE 2050 MURAL, MY EMAIL and PHONE  
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DOWNLOAD THE FULL POWERPOINT DECK (of which this is the preview)

DOWNLOAD FULL WBCSD REPORT  
[www.wbcds.org/web/vision2050.htm](http://www.wbcds.org/web/vision2050.htm)

MY WEBSITE  
[www.stanford.edu/~rhorn](http://www.stanford.edu/~rhorn)