

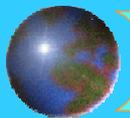


***Corporate Responsibility***  
***and the need for a new macro-ECO-nomy***



***China Future 500 Conference***  
***Beijing, Oct 18 & 19 2005***

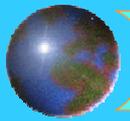
Dr. Werner Christie  
Science and Technology Counselor  
Innovation Norway  
Beijing



***Basic Assumptions of Market Economy***

- ✦ "Shareholder Value"; If everyone optimize their own self interest, this will serve the benefit of all.....
- ✦ Through the automatic mechanism of the "invisible hand.."
- ✦ GIVEN: Full information for market players....,
- ✦ ....and free and unrestricted competition
- ✦ I.E.: We invest in products and services to earn money/currency
- ✦ THIS is what we call "Value creation.."

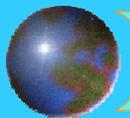




## *Economics of intangible and public values*

### *Health, Education and Environment...*

- ✦ Part of the Market Economy??
- ✦ Cost centre or profit centre?
- ✦ HEALTHCARE: Spends Money to produce services..(NOT: produce service to earn money)
- ✦ EDUCATION: Spends to create Learning (not earnings)
- ✦ ENVIRONMENT: Invest to save the value of the commons..
- ✦ Private interest or public interest?
- ✦ Is the social infrastructure not a part of (market) economics, or is market economics only *part of* a broader ECO-nomy?

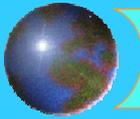


## *Uncovered Interdependent Needs: Challenges also for the corporate world?*

Some examples:

- ✦ Food & Nutrition
- ✦ Clean water
- ✦ Energy
- ✦ Environmental sanitation
- ✦ Education
- ✦ Health
- ✦ Access to technology
- ✦ Property / Capital



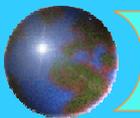


## Macro-economics and the poor

- ✦ Poverty and development:
  - ❖ GDP growth is not enough
  - ❖ Highest needs have lowest purchasing power
  - ❖ World Bank, IMF; - differentiated development indicators!?
  - ❖ Distribution of resources must be addressed
  - ❖ Market Failures is a major problem

*" The fact remains that the IP regime overwhelmingly reflects the interests of the producers..."*

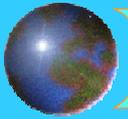
(Joseph Stiglitz, Nobel Price Laureate of Economics 2001)



## What is our personal incentives

- ✦ Food
- ✦ Shelter
- ✦ Safety
- ✦ Community
  - ❖ Respect
  - ❖ Sympathy
  - ❖ Empathy
  - ❖ Care
  - ❖ Conscience
  - ❖ Solidarity
- ✦ One dimensional seekers of self interest
- ✦ Do they exist??
- ✦ How can we develop ECO-nomics that calculate these intangible values





## Markets or Social Governance

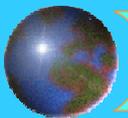
*"As market participant I maximize my own profit. As a citizen I am interested in social values; peace, justice, liberty etc. I cannot express these interests through the market..."*

(George Soros)

*"The far-reaching powers of the market mechanism have to be supplemented by the creation of basic social opportunities for social equity and justice."*



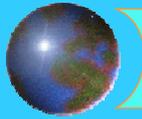
(Amartya Sen)



## The Knowledge ECO-nomy

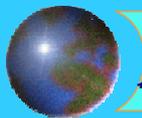
- ✦ The *productive factor* is Knowledge
- ✦ The *added value* is in the innovation
- ✦ *Capital* is healthy, educated & free humans
- ✦ *Competitive edge* is novelty, uniqueness and excellence
- ✦ *Lateral leadership* and inspiration rules
- ✦ Cutting edge *scientists* more important than top executive economists
- ✦ *Collaboration* more than competition creates synergy



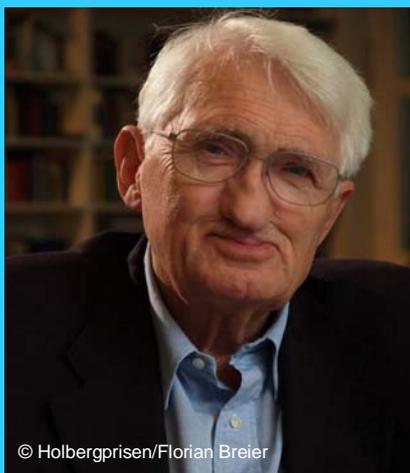


## The promise of soft techno-logy

- ⊕ **Techne = Craft, Logos = knowledge..**  
*"how to combine resources to produce desired products"*
- ⊕ **Soft Technology - intangible products**
  - ⊞ *In Economic activities*
  - ⊞ *Social activities*
  - ⊞ *Cultural and psychological activities*
- 1. *Tool of innovation (Tech transfer, entrepreneurship etc.)*
- 2. *Key technology for independent industries*
- 3. *Constant and basis for institutional innovation*
- 4. *I.E.: **Economics** is a key soft technology*
- 5. *BUT: Do we have an economics of soft technology??*



## How do we apply knowledge to development



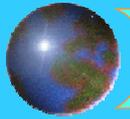
© Holbergprisen/Florian Breier

**Jürgen Habermas;**

Winner of 2005 Holberg Price  
(The "Nobel Price"  
of Social Science)

- ⊕ *Technologically,*  
according to laws of nature – the mode of industry and ecology
- ⊕ *Strategically,* as in chess and game theory – the mode of business
- ⊕ *Discursive,* as in Socratic dialogue, the mode of scientists and citizens  
"Soft" technology

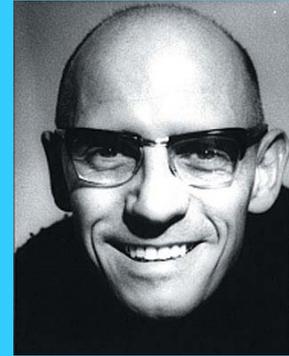




## *How do we adopt the new Ideas...?*

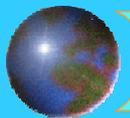
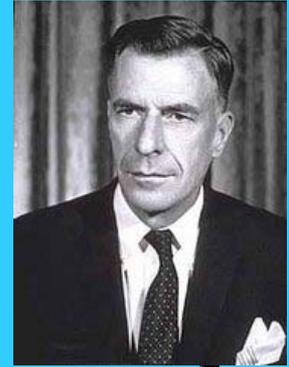
*" Governmentality ...";  
The power of the ruling  
ideas..... Gouvernmentalité*

*Michel Foucault*



*"The problem is not the new  
ideas, but getting rid of  
the old ones which  
permeate every corner of  
our minds..."*

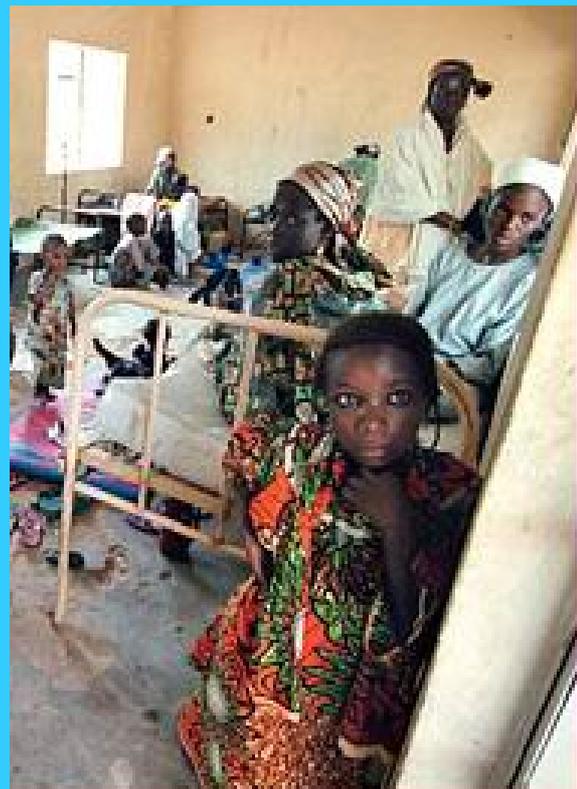
*Jon Kenneth Galbraith*

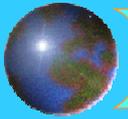


## *The Corporate Issues*

**"...concern among  
leading investors that  
if companies do not  
help less developed  
countries with health  
problems, they will  
suffer unfriendly  
regulatory change,  
reputational damage  
and less sympathetic  
courts to patent life  
and drug pricing..."**

*(Core)*

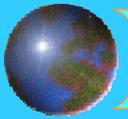




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## A Future MacroEConomics..

- ✦ Needs to incorporate calculations of the *ecological balance sheet*: State of the resource base, ecology etc.
- ✦ Needs to consider the unfair advantages of *knowledge and technology gaps*.
- ✦ Needs to take into account the *intangible capital*: Education, knowledge, health, organization, culture, collective spirit, shared goals.....
- ✦ Needs to *invest more in social infrastructure*
- ✦ Needs shift from shareholder value to *stakeholder value*
- ✦ Needs to consider *citizens interests* as well as consumers interests
- ✦ Needs to acknowledge the need for comprehensive *market regulations and a strong public sector*

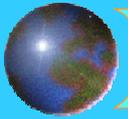


## Lao - Tse (Tao Te Ching , 10)



Can you lead your people  
Without seeking to control?  
Can you open and close the  
gates  
In harmony with nature?  
Can you be understanding  
Without trying to be wise?  
Can you create without  
possessiveness  
Accomplish without taking  
credit,  
Lead without ego?  
This is the highest power!





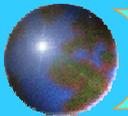
## Lao – Tse (Tao Te Ching, 17)

With the best of  
leaders  
When the work is  
done,  
The project  
completed,  
The people will say:  
“We did it ourselves.”



10 september 1997

15



## *Thank you!*



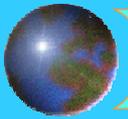
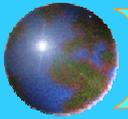
[Werner.Christie@Invanor.no](mailto:Werner.Christie@Invanor.no)

+ 47 905 76 920



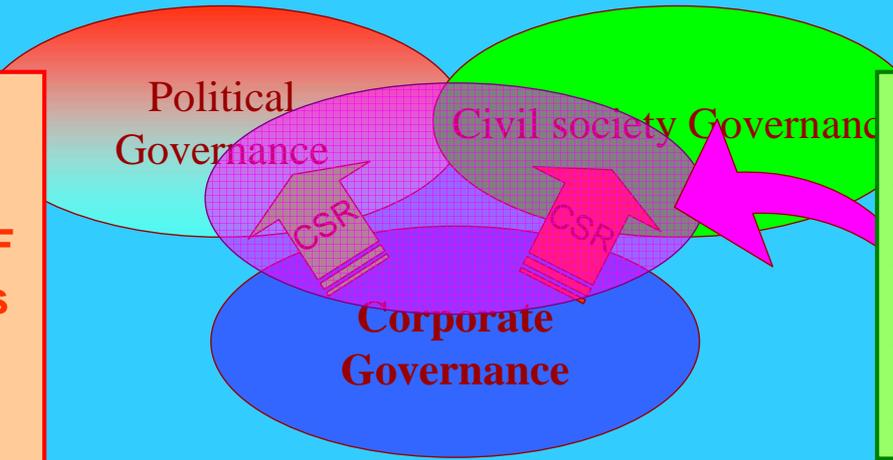
**„The test for our progress is not what we can add to the affluence of those who have much, the test is how much we can supply for those who have too little of everything.“**

Franklin D. Roosevelt, 1937



# Governance in a Globalized World

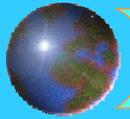
- UN
- WHO
- UNICEF
- UNAids
- WB
- WTO
- TRIPS
- WPO
- WEF
- etc



- NGO's:**
- Oxfam
  - MSF
  - WWF
  - etc,etc

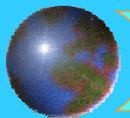
Public private partnerships





## *A New Gross Corporate /Domestic Product*

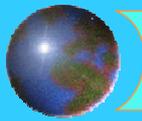
- ✦ ECO-nomics : Resource assets should count: environment, resource efficiency, population health and education, cultural assets etc.
- ✦ "Soft" Capital in the balance sheet: Reputation , trust, ethics is valuable market "goodwill"
- ✦ Badwill kills companies: Monsanto, Anderson, Enron....
- ✦ "The ruling opinion..." rules the market (consumers) as well as voters (Citizens)



## *Issues and investment risks*

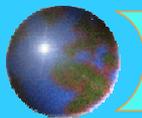
- ✦ **Global Disease Burden**
- ✦ **Access to essential medicines**
- ✦ **Safety and testing of Medicines**
- ✦ **Bioprospecting and Indigenous rights**
- ✦ **"Pharming" and the environment**
- ✦ **Anti-Bribery and Corruption**





## Global disease burden

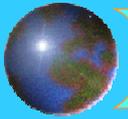
Disease	Dead /yr (K)	Control	Treatments/ Cure	Rel. R&D Spending
HIV/AIDS	2,943	Uncontrollable	Yes/No	+++++
Diarrhoe	2,124	Available	Yes/No	+
TB	1,660	Available	Yes/Yes	+++
Malaria	1,080	Available	Yes/No	+++
Sleeping sickness	50	Available	Yes/No	+
Misc infections	75	Available	Yes/Yes&No	+
<b>Infections:</b>	<b>14,000</b>			



## Best selling Drugs

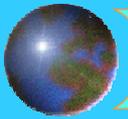
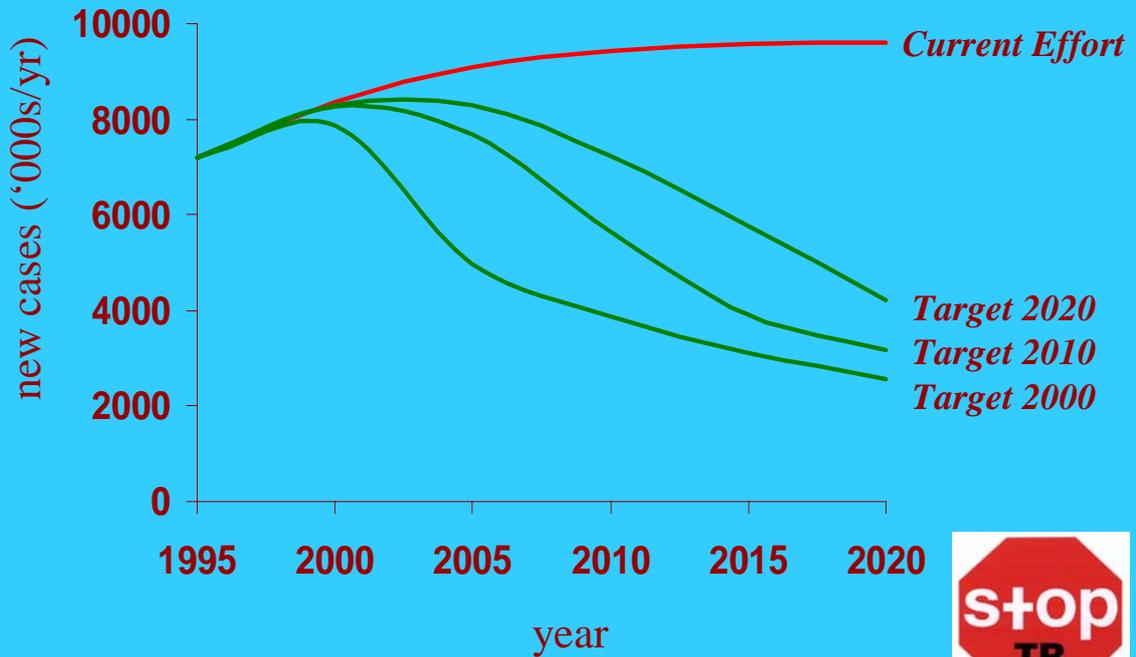
Rank	Indication	Drug	Company
1	Pep. Ulcer	Losec	AstraZeneca
2	Blood fat	Zocor	Merck
3	Cholesterol	Lipitor	Pfizer
4	Angina	Norvasc	Pfizer
5	Ulcers	Prevacid	TAP Pharma
6	Allergy	Claritin	Schering
7	Kidney Transplant	Pocrit/Eprex	John.&John.
8	Arthritis	Celebrex	Pharmacia
9	Depression	Prozac	Eli Lilly
10	Schizophrenia	Zyprexa	Eli Lilly





# World summary: Tb cases

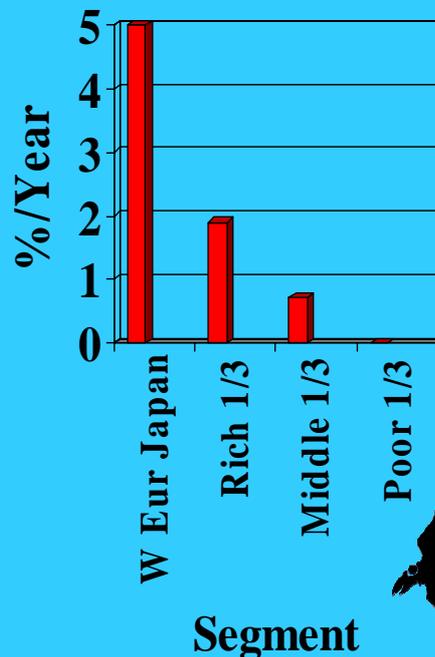
Target Goals: 70 % detection, 85 % Cure rate

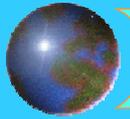


# Growth in markets and demands

## Growth rates 1970 -95

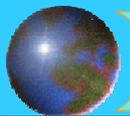
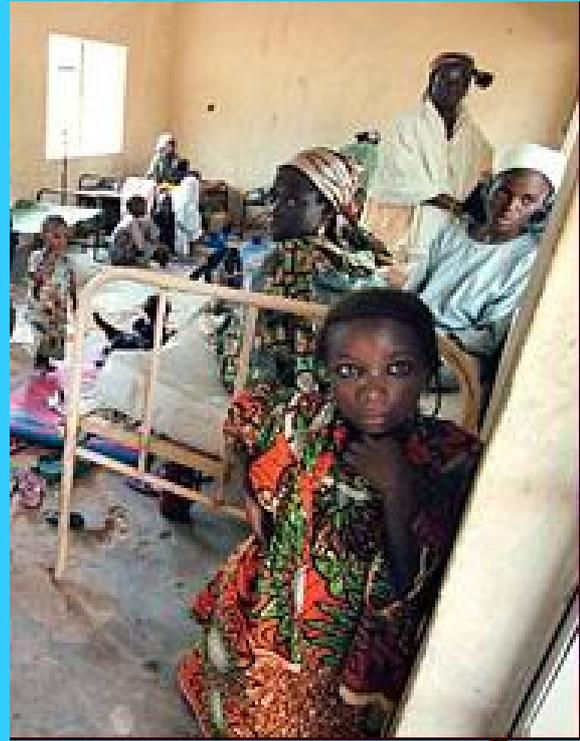
- ✦ Western Europe and Japan: 5% avg. Growth/year since 1950
- ✦ Have 60 % of GDP and 15 % of World population
- ✦ Richest third 1,9 % richer pr.year between -70 and 95 (World dev report 2000)
- ✦ Middle third 0,7% richer /year
- ✦ Poorest third 0 % richer





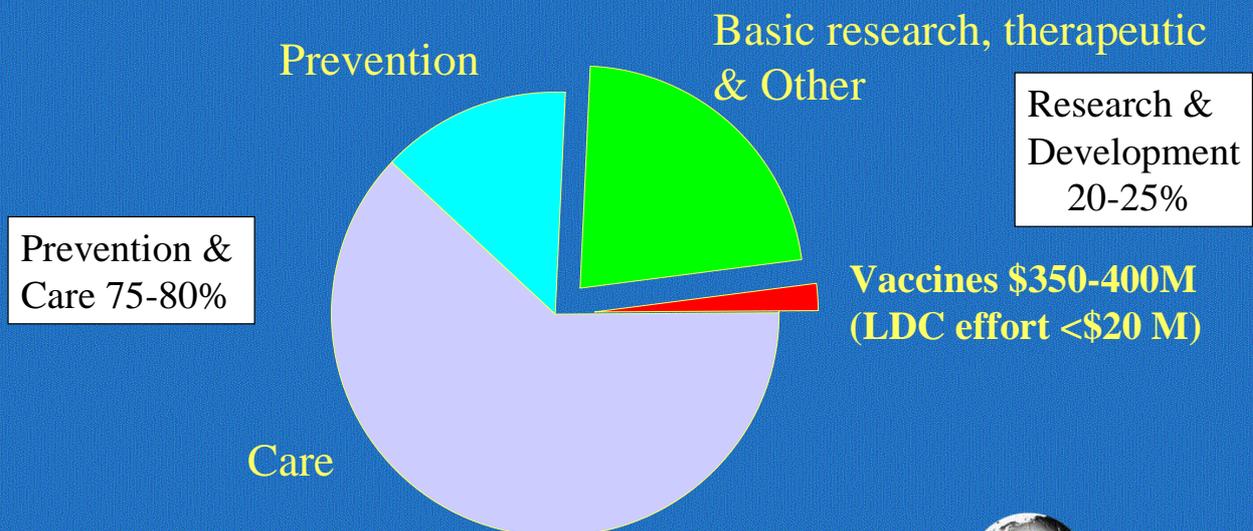
## But where are the needs..?

- ✦ 3 Billion have less than \$ 2 (PPP) /day<sub>(WB)</sub>
- ✦ 1,3 Billion have less than \$ 1 (PPP) /day<sub>(WB)</sub>
- ✦ 650 Million Sub Saharans have less than 50 cents /day<sub>(Economist)</sub>
- ✦ Poverty gap:
  - ▣ South Asia 12,6%
  - ▣ Sub Sahara 15,3%



## Efforts of HIV vaccine research....

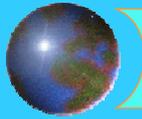
### Estimated Worldwide HIV Expenditures\* (2001 in Millions of Dollars)



Global Total = \$20+ Billion

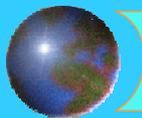


\* Source: IAVI estimates & AIW II



## *Access to essential Dugs*

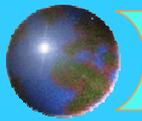
- ✦ Patents is necessary, but can be practiced in socially reponsible ways
  - ▣ Patent flexibility
- ✦ Market failures must be adressed
  - ▣ Differential Pricing ( NB: Reference Prices & Paralell imports )
  - ▣ Drug Donations
- ✦ Public support and collaboration
  - ▣ Public Private Partnerships
- ✦ Orphan disease drugs
  - ▣ Philantropic Drug Development



## *Possible Corporate Responsibilities*

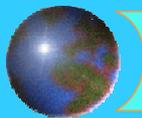
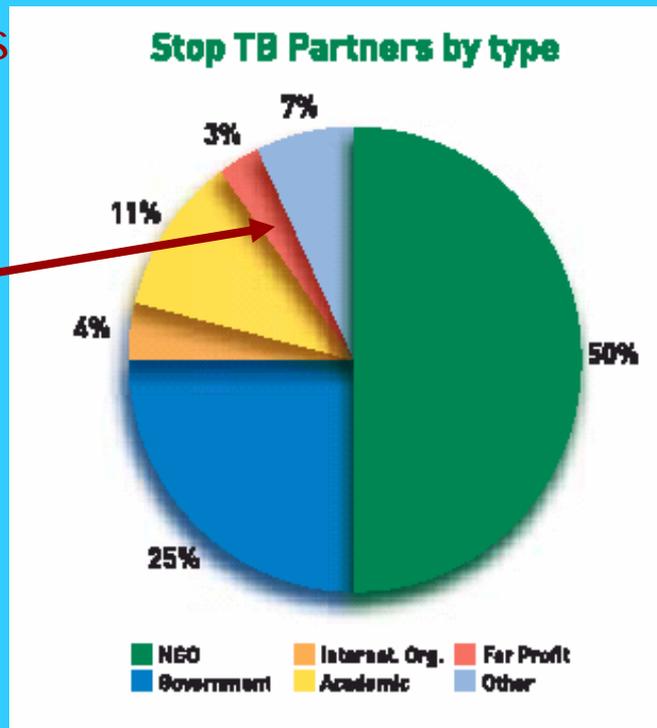
- ✦ Stimulate technology accessability,
- ✦ Public domain tools, private products (SNP consortium/ref Linux vs. Microsoft
- ✦ Support program implementation
- ✦ Generate Civil society supporters
- ✦ Royalty for the indigenous technologies & countries of origin
- ✦ Partnerships in research and innovation
- ✦ Public Private partnerships
  - ▣ IAVI, Gavi, PATH, Acumen fund etc...





## Public Private Partnerships

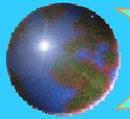
- ✦ More than 400 PPPs evolved last 20 yrs
- ✦ Still Lack of commitment from Corporate world
- ✦ Funding issues
- ✦ Struggles with market failures
- ✦ IPR issues
- ✦ Governance
- ✦ Coordination



## KEY PRINCIPLES OF PPPs

- ✦ Roles of academia, business and government for provision of public goods are different, - but developing!
- ✦ Academia, business and government and serves diverse objectives and stakeholders, - that overlap!
- ✦ Corporate contributions to public programmes create synergies, - but also conflicts of interests!
- ✦ Global governance must stimulate corporate initiatives and collaboration, but also regulate!
- ✦ Frameworks for collaboration must develop better mechanisms for tools development for Global Governance organisations and treaties





## The Activists



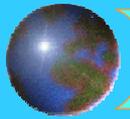
**GAVI** Global Alliance for Vaccines and Immunization

**IAVI, TDR, Global fund ATM, WB, Unesco, Unicef, NGOs, Governments, Corporations**

etc etc....



Program for Appropriate Technology in Health



## EU Means: "EAGLES Health"

- Public and political awareness in Europe for applications of life science in developing countries,
- Raise European understanding of challenge of poverty-related diseases in the world,
- Promote European life science for poverty-related diseases of the developing countries,
- Encourage public and political support in Europe for the European programmes on poverty-related diseases

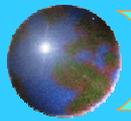


EUROPEAN FEDERATION OF BIOTECHNOLOGY



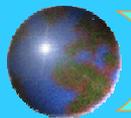
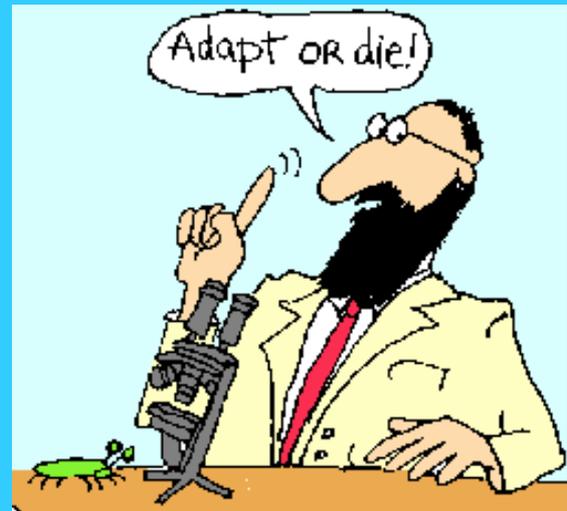
3600 personal members from 36 European and 47 non-European countries

190 institutional members from 31 European and 9 non-European countries



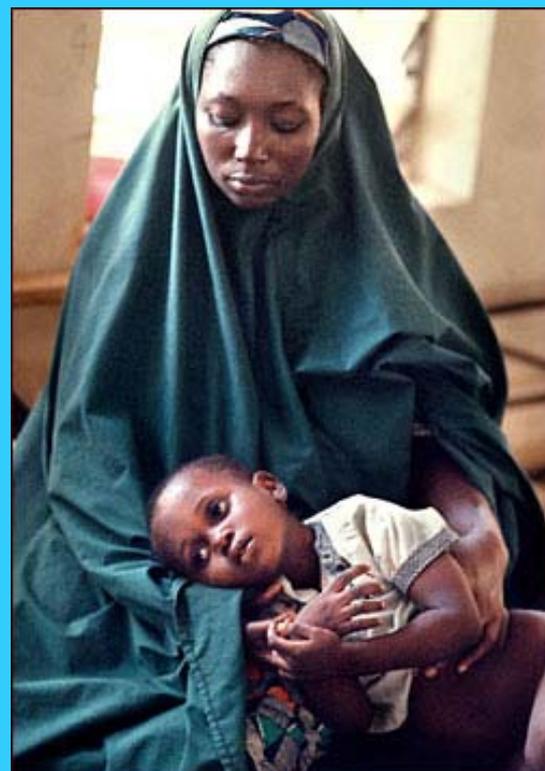
## ***Risk factors of irresponsible Corporations***

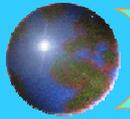
- ✦ **Brand value impairment**
- ✦ **Harm to intangible values**
  - ❖ **Goodwill**
  - ❖ **License to operate**
  - ❖ **Human Capital**
- ✦ **Damage to Collateral Reputation**
- ✦ **Regulatory interference**
- ✦ **Legal Actions**
- ✦ **Access to people skills**
- ✦ **Competitive advantage**



## ***Suggested Corporate responses***

- ✦ **Focus on needs, create markets**
- ✦ **Develop Technologies relevant for Development**
- ✦ **Support local innovation and entrepreneurship as this creates growth**
- ✦ **Tiered Pricing gives access and sale**
- ✦ **Conditioned licensing for selected markets**
- ✦ **Active Collaboration with Civil and Public society**
- ✦ **Promote Debt for Health, Research & Innovation!**





# GMOs and utility issues

## Need to differentiate:

### Biological issues:

- Is it safe? Sustainable?
- Ecologically sound? Coexistence?

### Economical issues:

- What are the advantages?
- Who will profit from them?
- Who can afford access to GMO?

### Political issues:

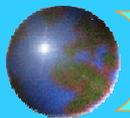
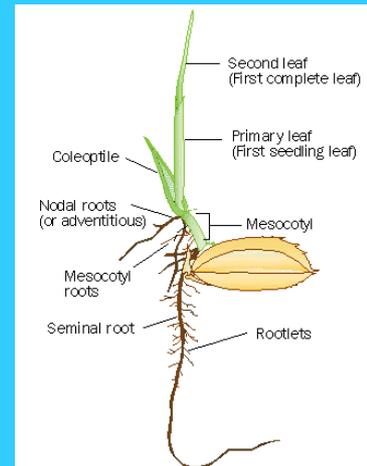
- Who controls the patents? The seeds? The information?
- Who controls the reviews? The markets? The advantages?

### Availability:

- For whom? On which premises?

### Independence:

- From what? For Whom?

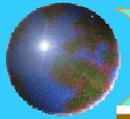


# Compliance leveraging (© E&Y)

## Compliance Leveraging<sup>SM</sup>

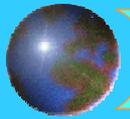
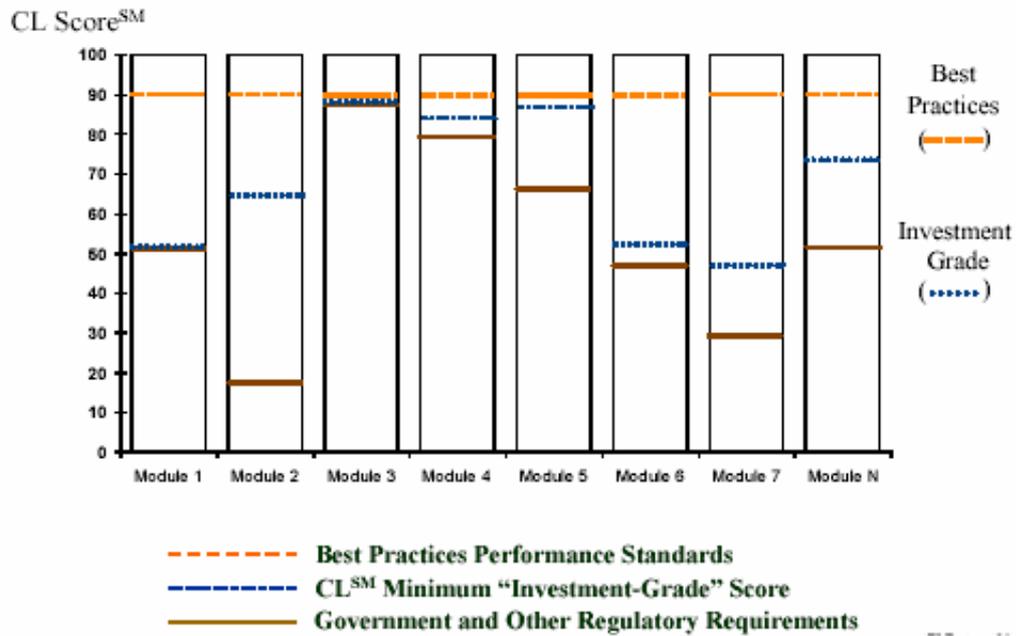
### Examples of Modules

- Good Manufacturing Practices (GMPs)
- Good Clinical Practices (GCPs)
- Good Laboratory Practices (GLPs)
- Adverse Event Reporting
- Protection of Research Volunteers (e.g., IRB and Informed Consent)
- Intellectual Property Protection (e.g., Material Transfer Agreements, Patent Filings, Licensing Agreements)
- Advertising and Promotion Standards & Adherence
- Regulatory Inspection Results
- Corporate Governance Standards



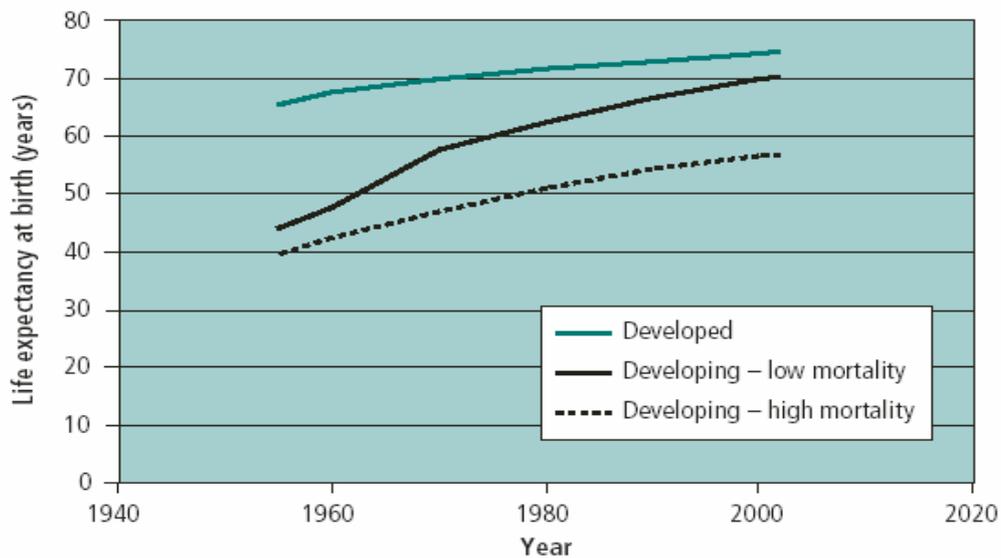
# Compliance Benchmarking

## Compliance Leveraging<sup>SM</sup> Measurement Methodology

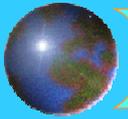


# The inequity of wellbeing

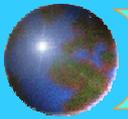
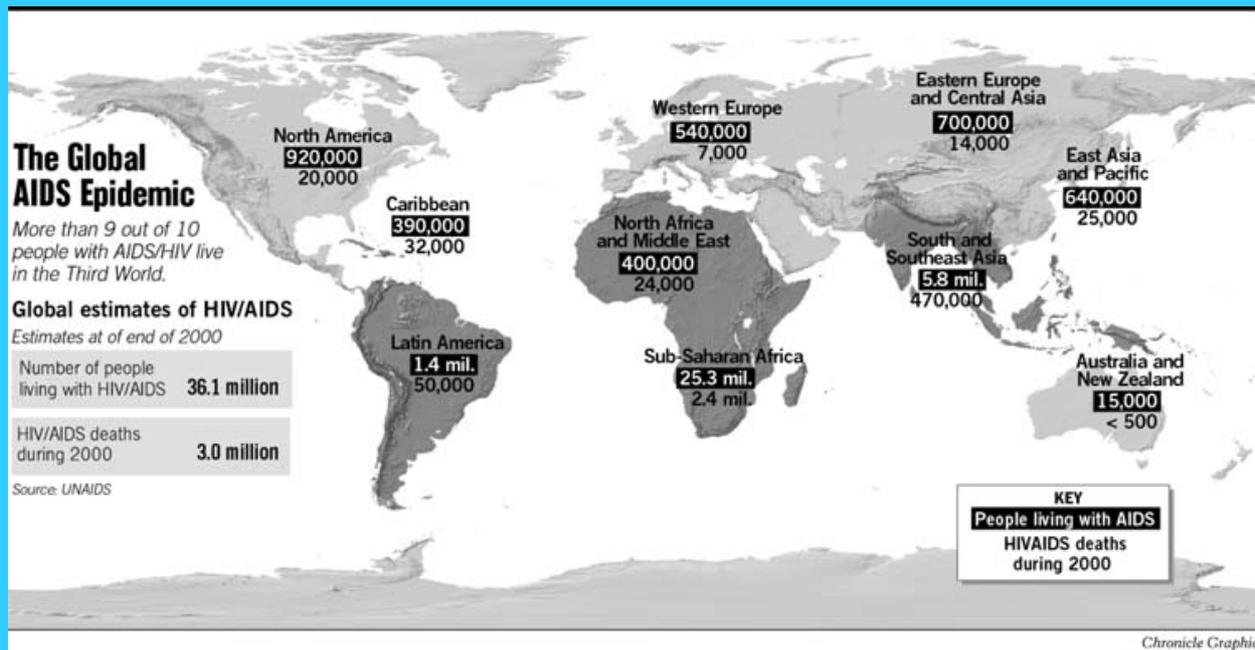
Figure 1.1 Life expectancy at birth: developed and developing countries, 1955–2002



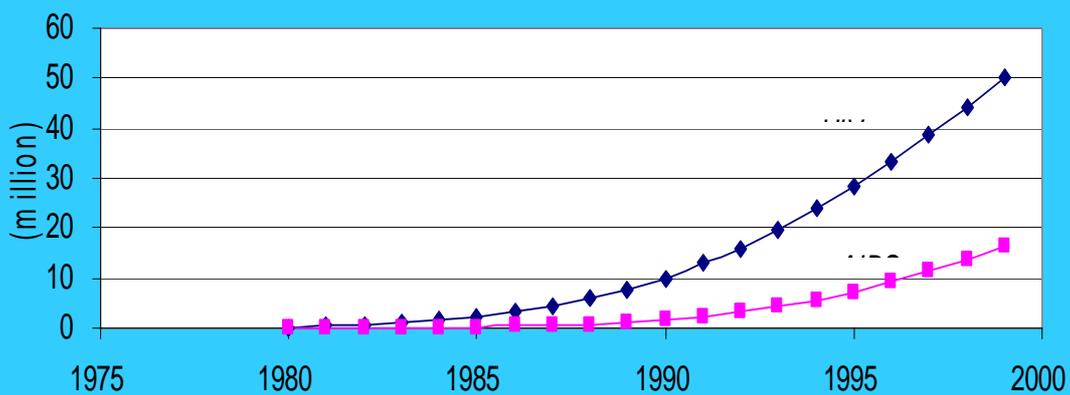
Note: The term developed countries includes Australia, Canada, European countries, former Soviet countries, Japan, New Zealand and the USA. High-mortality developing countries include those in sub-Saharan Africa, and countries with high child and adult mortality in Asia, Central and South America and the Eastern Mediterranean. Other developing countries are referred to as "developing – low mortality".



# The Aids Epidemic



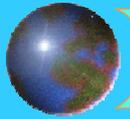
# Global Estimates of Cumulative HIV/AIDS Infections and Deaths, 1980-99



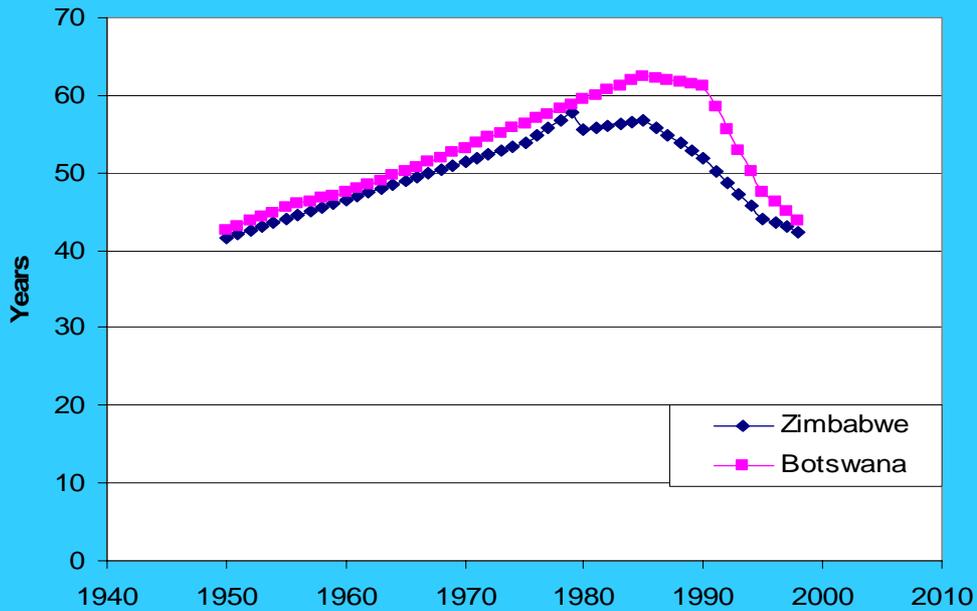
Compiled by Worldwatch Institute

—◆— HIV Infection (million) —■— AIDS Deaths (million)

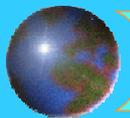




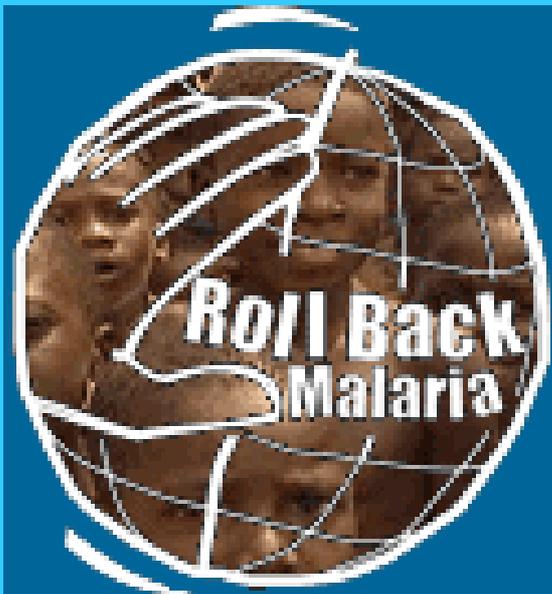
## Life Expectancy in Zimbabwe and Botswana, 1950-98



Compiled by Worldwatch Institute

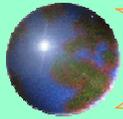


## The Malarial Challenge



- 300 million cases of Malaria estimated/year
- Resulting > 1 mill dead
- 90% occur in Africa south of the Sahara
- most victims are Children under 5
- Pregnant women are especially vulnerable
- Malaria compounds Poverty
- Impedes economic development



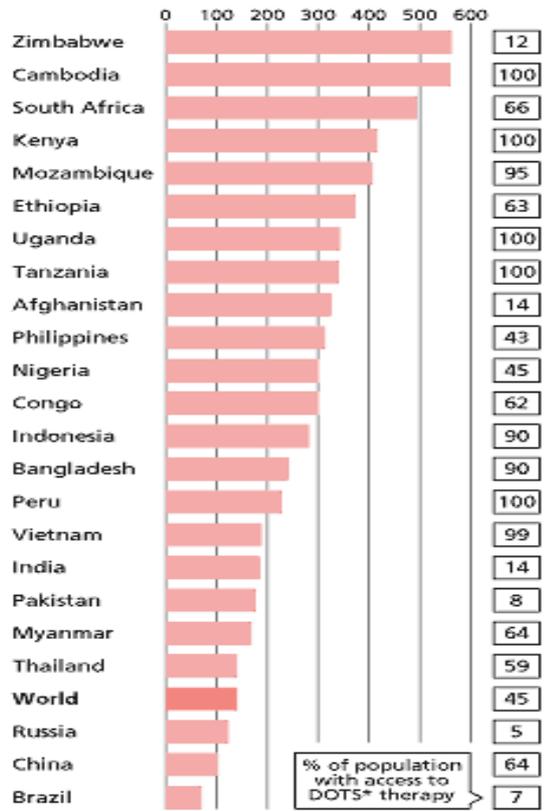


# TB epidemic

- Most important killer of people in fertile & working age
- Fully treatable
- Costs less than \$ 30/case
- 10 mill diseased
- > 2 mill deaths/year
- Often combined with HIV/Aids

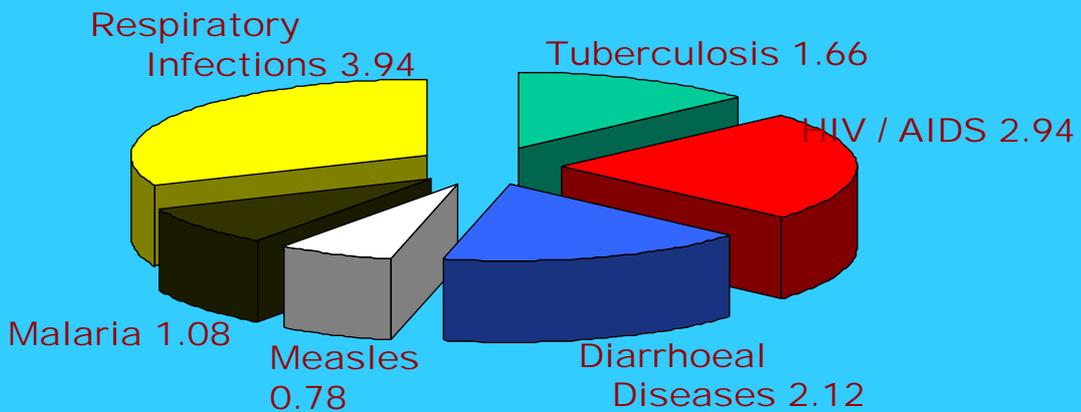
## Tuberculosis cases

New cases per 100,000 population, 1999



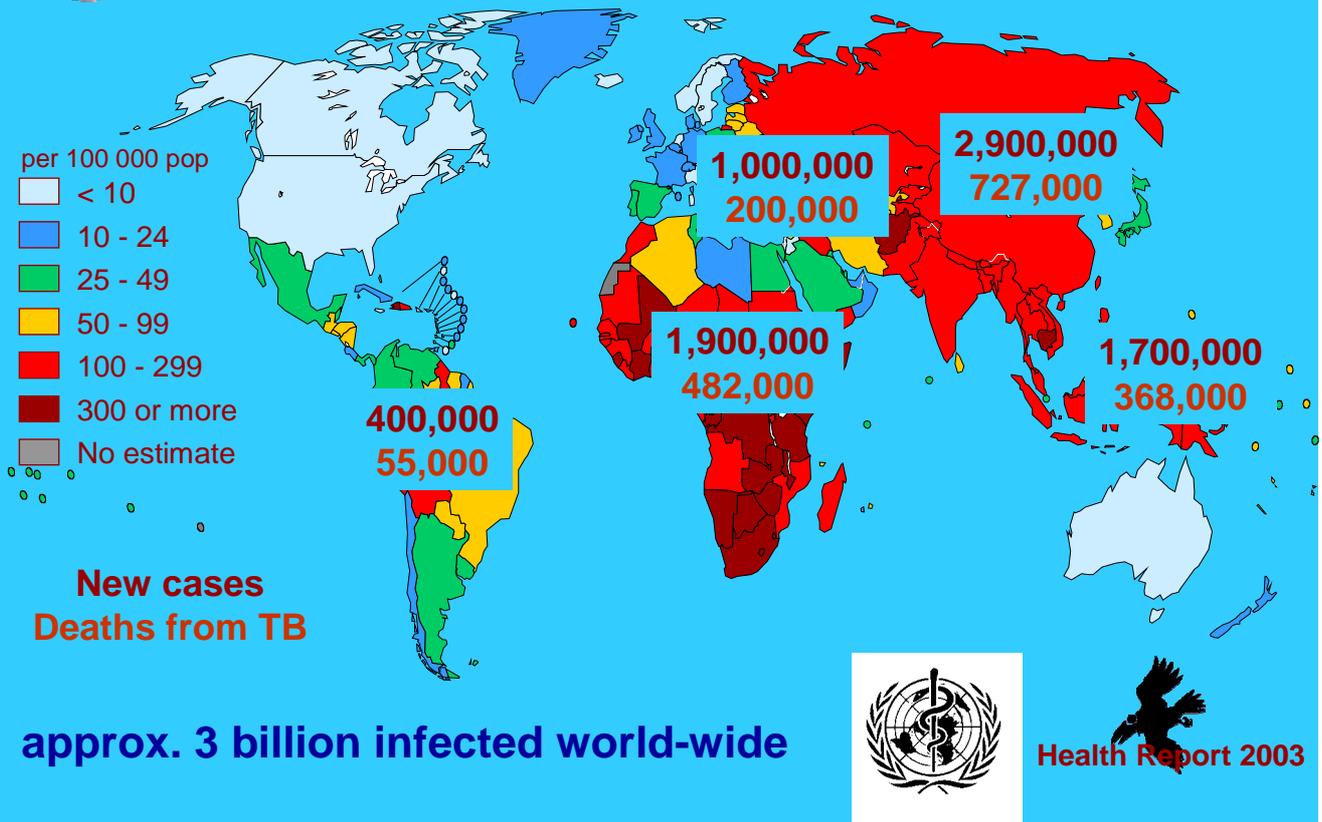
## The Problem:

### Communicable diseases, deaths by cause in millions





## The problem: TB Incidence Rates, 2001



## Investments in Tb Research

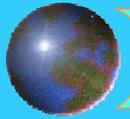
- Improving treatment
  - ⊠ New diagnostic tests; early diagnosis
  - ⊠ New drugs; shortened duration of treatment
- Improving other strategies
  - ⊠ New vaccine
  - ⊠ Treatment of latent infection



Mechanisms:

1. Funding development of new tools,
2. Enabling environment for commercial development
3. Reviewing the performance of new tools and technologies.



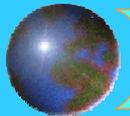


### Main Constraints (1998)

- ✦ Political will and commitment
- ✦ Human resources
- ✦ Anti-TB drugs
- ✦ Research
- ✦ Financing
- ✦ Organisation
- ✦ Info systems
- ✦ Health sector reform

### 2004 Challenges

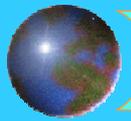
1. Advance achievements
2. Political commitment
3. Workforce crisis
4. Strengthen health systems,
5. Accelerate response to HIV/AIDS
6. Mobilise communities and the private sector
7. Invest in research and development to shape the future



## Potential models for supply

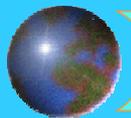
- ✦ Company produces globally; price tiering
- ✦ Company produces globally; bulk packaging for South
- ✦ Company produces for OECD; joint venture for LDC provision
- ✦ Company produces for OECD; IP for LDCs stays in trust and is produced through contract manufacturing/technology transfers
- ✦ Regardless, political acceptance of price tiering, quality and no IP leakage is critical to success





## *Create incentives for Industrial Investment*

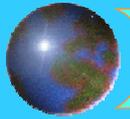
- ⊕ Active dialogue with industry
- ⊕ Policy program including political support for strongly tiered pricing
- ⊕ Create credible market in developing countries through purchase funds
  - ⊗ Ensure availability
  - ⊗ Increase profits/reduce cost of manufacturing
  - ⊗ Remove controversies related to supply for the poor



## *Understanding*

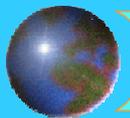
- ⊕ Health and education = Prerequisite for Growth and development
  - ⊗ How health contributes to Growth
  - ⊗ How education contributes to health and growth





## ***Biotechnologys promise***

- ✦ Definitions
- ✦ Some arguments from the WHO report :
- ✦ Diagnostics
- ✦ Prevention / vaccines
- ✦ Drugs
- ✦ Stem cells, tissue culture etc
- ✦ Neutraceuticals
- ✦ Better plants & Nutriton
- ✦ Breeding for better yields and pest resistance
- ✦ GMOs for better yields and pest resistance



## ***Bioethics;The Issues*** ***ART (Artificial Reproductive Technologies)***

- ✦ Briefly : What is ART, Why is it controversial
- ✦ Biotech is more than ART, most biotech is not ART
  - ❖ Bioetics need a differentiated, specified and nuanced approach to various separate issues!!
- ✦ ART Issues:
  - ❖ When does life start
  - ❖ When does human dignity and integrity appear
  - ❖ Human Value and Human rights; - for the unborn
- ✦ Embryo Diagnostics & Genetic selection
  - ❖ Abortions
  - ❖ Designer Babies

