

SOCIO-ECONOMIC CONSIDERATIONS FOR DECISION MAKING IN BIOSAFETY

Alexander Golikov

Executive Secretary, Black Sea Biotechnology Association

Bucharest, Romania 11 October 2006

“Everything that happens has happened before; nothing is new, nothing under the sun.

... and all that will be has already been...”

Ecclesiastes, 1.9, 3.15

“We have recently advanced our knowledge of genetics to a point where we can manipulate life in a way never intended by nature. We must proceed with the utmost caution in the application of this new-found knowledge.”

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Luther Burbank, 1908



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AND

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2:51 PM
September
21
Thursday

BSBA
AS THE KEY
TO SUSTAINABLE BIOTECHNOLOGY

Yalta Declaration

*Agricultural Biotechnology to Serve
Social and Economic Development
through Global Cooperation*



International Symposium: "Biosafety Issues in Implementation of GMOs:
New Research Approaches, Regulation, and Public Perception"
Yalta, Ukraine 10 – 14 May 2006 Proceedings

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Sustainability is:

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★ A right product

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- ★ A right product
- ★ In a right place

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- ★ A right product
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- ★ At a right time
- ★ Under right conditions

Regulating biotechnology

Article 8 (CBD). In-situ Conservation:

Each Contracting Party shall, as far as possible and as appropriate:

...

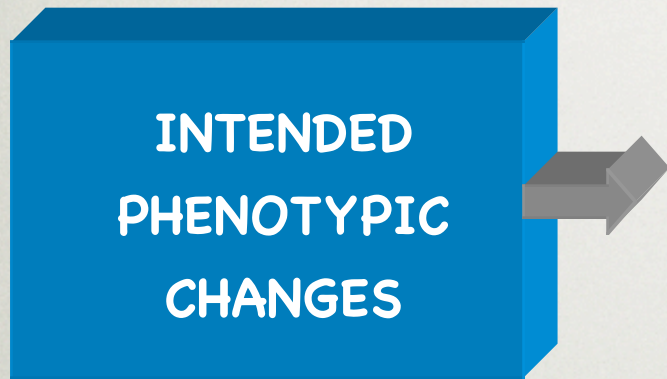
(g) Establish or maintain means **to regulate, manage or control the risks** associated with the use and release of living modified organisms resulting from biotechnology...

...

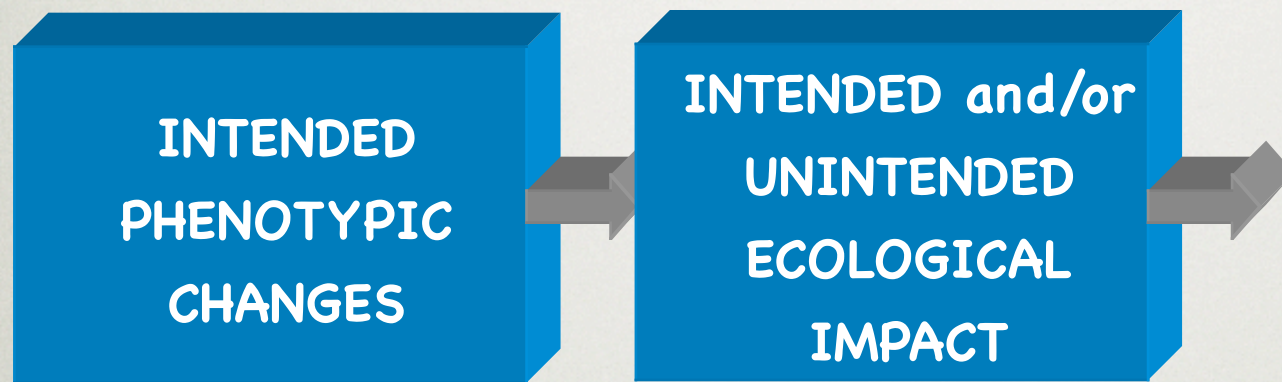
taking into account socio-economic considerations (CBP)

Biosafety issues

Biosafety issues



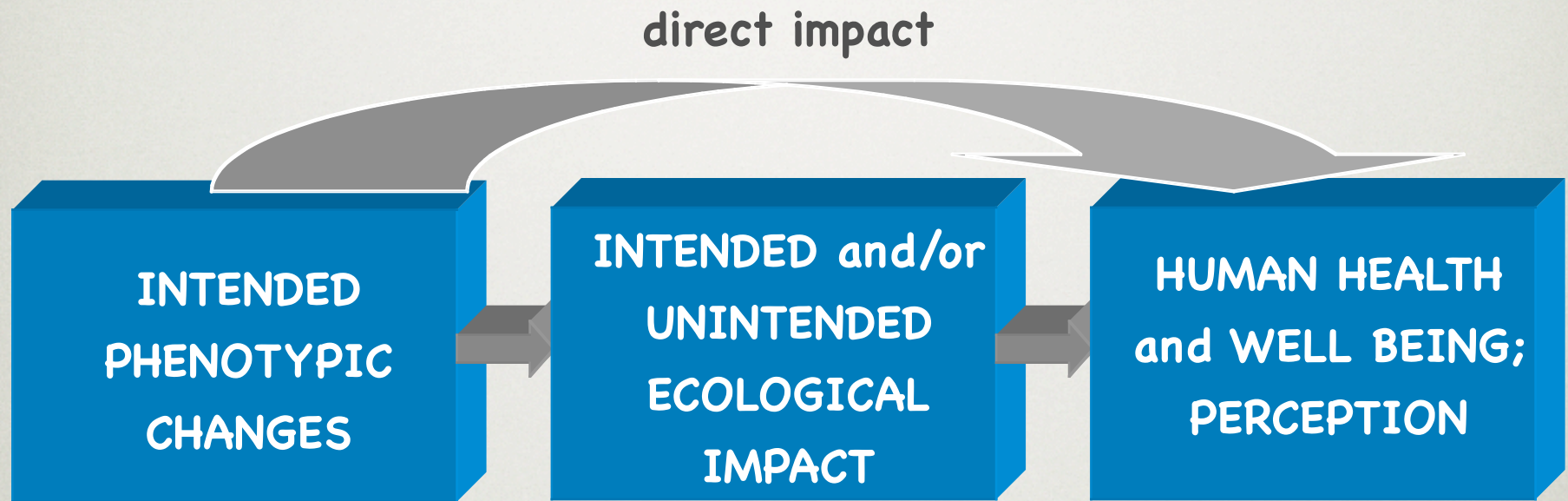
Biosafety issues



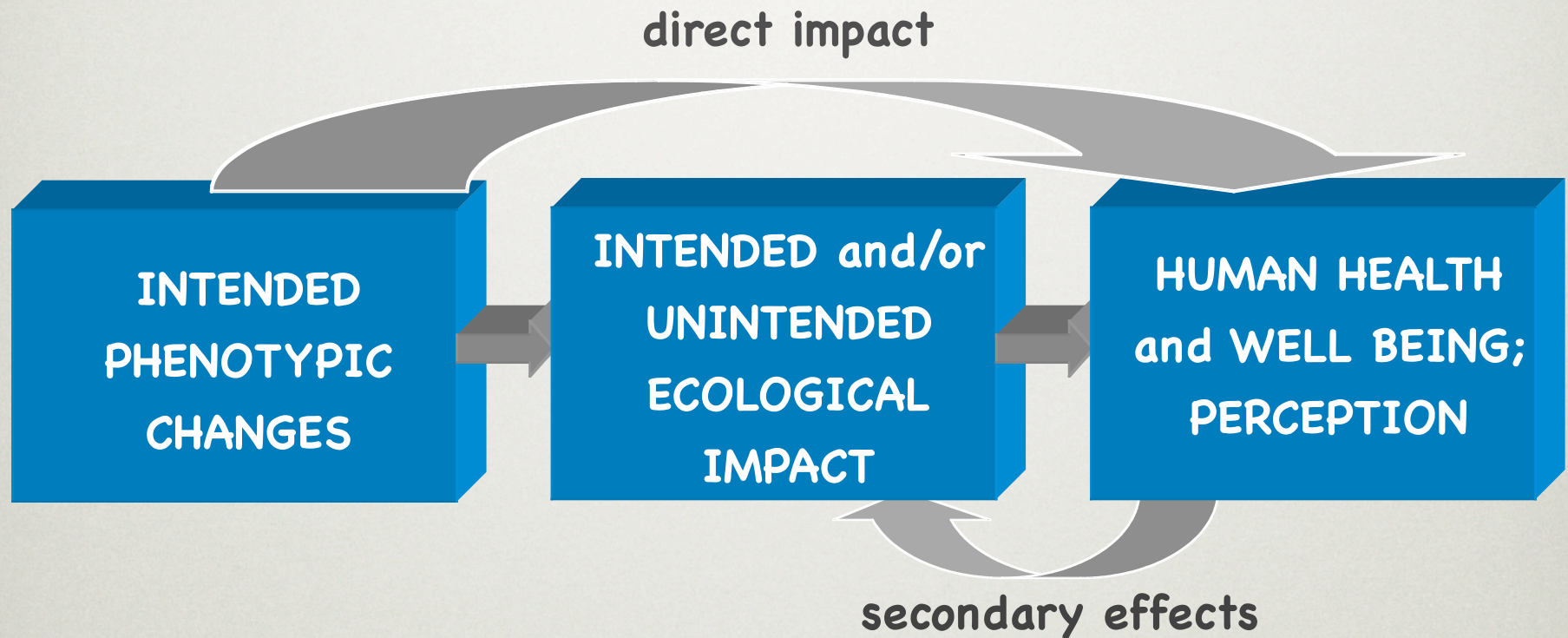
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Biosafety

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- ★ What are the strategies of risk management and response measures?
- ★ What is the monitoring strategy?

Biosafety

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- ★ What are the strategies of risk management and response measures?
- ★ What is the monitoring strategy?
- ★ What is the government's decision?

Risk assessment - the prediction of likely hazard - is often allowed to drift into risk management, where economic and socio-cultural factors play a role in deciding whether to accept a particular level of risk, or even not the risk but the product and/or technology

Make-up of biosafety mechanism

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A - science based risk assessment

Make-up of biosafety mechanism

- A - science based risk assessment
- B - science based risk management

Make-up of biosafety mechanism

A - science based risk assessment

B - science based risk management

A+B - science based risk analysis



Make-up of biosafety mechanism

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A+B - science based risk analysis



C - science based decision

Make-up of biosafety mechanism

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B - science based risk management

A+B - science based risk analysis



C - science based decision

$$A + B \neq C$$

National flavor of biotechnology

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USA/Canada

Product is safe unless proven unsafe

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Most often

"As YOU like it" (W. Shakespeare)

The reason for strategic outcome

“Regulation is a means by which governments seek to gain benefits and ameliorate the potential negative consequences of a **free market economy**”

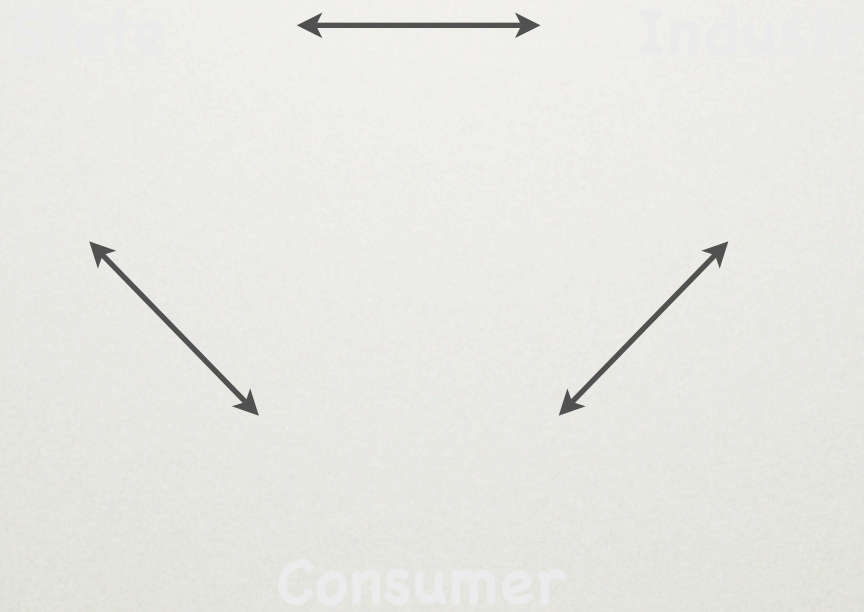
The US-EU Consultative Biotechnology Forum, December 2000

The reason for strategic outcome

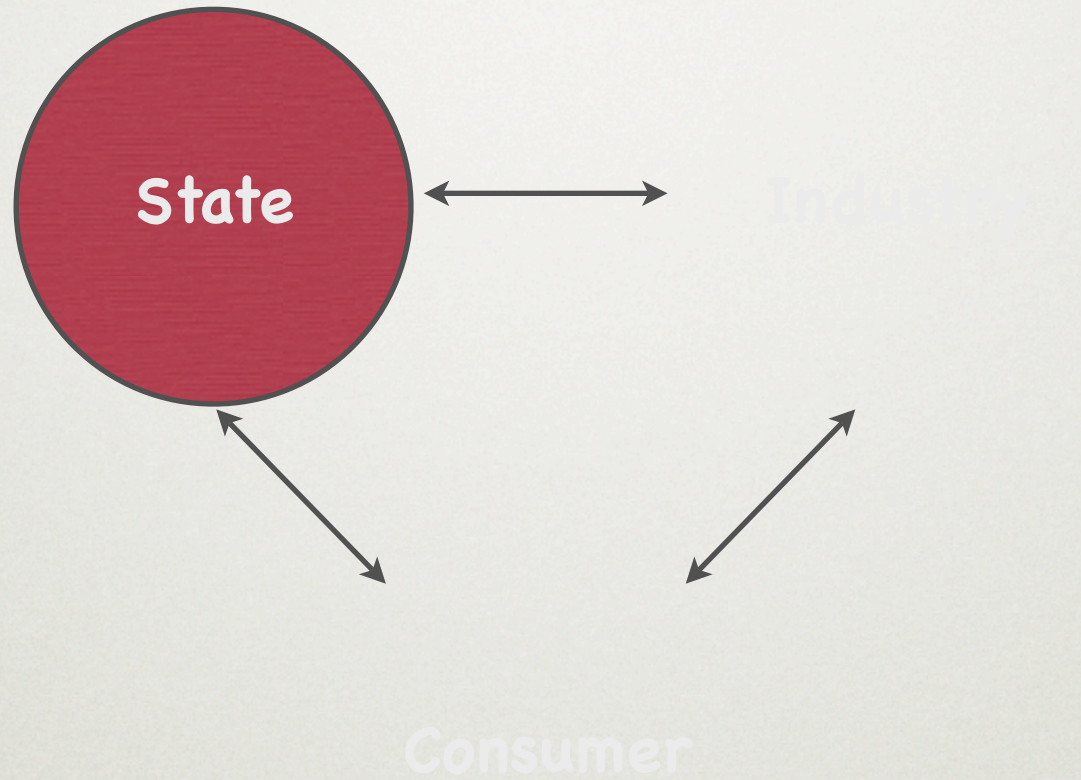
★ If a new product/technology is economically justified it will be on the market, the only bottle neck is the acceptance time. The main governments' task is to reasonably regulate it to avoid adverse effects

★ Acceptance of a new product/technology is determined by a free market economy type

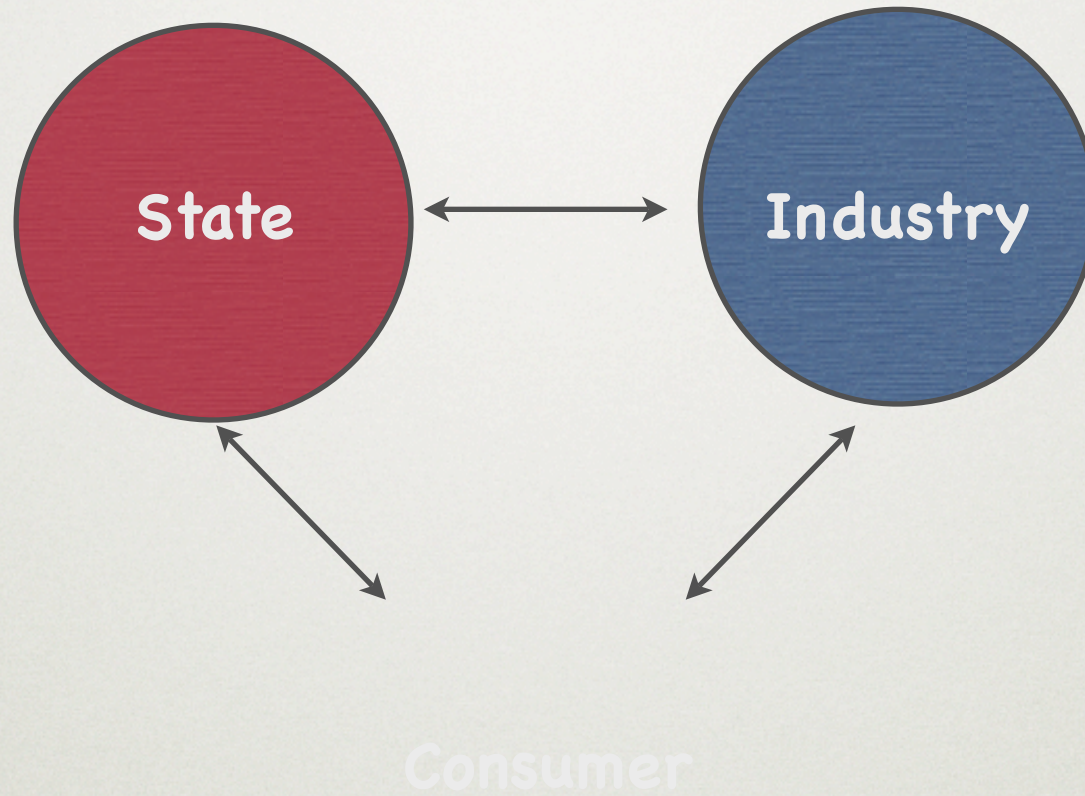
Key players and their roles



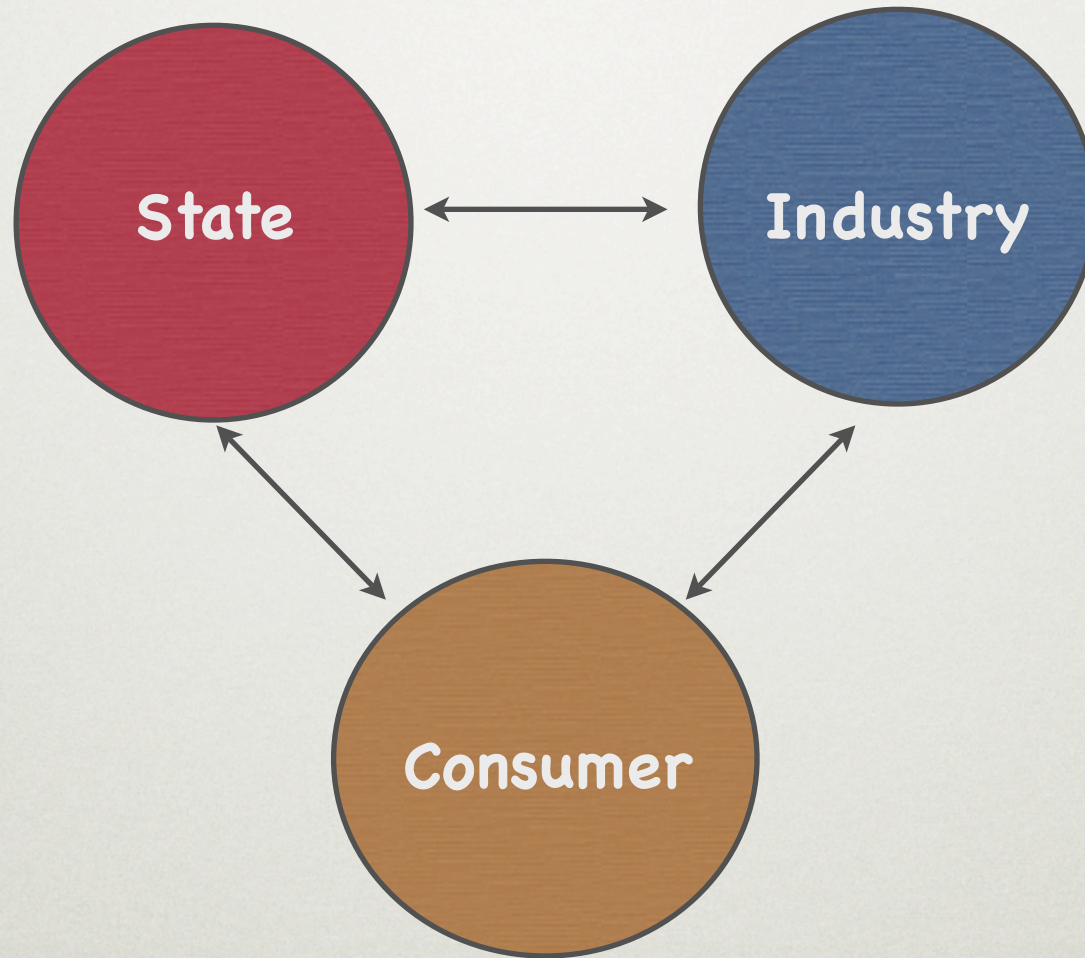
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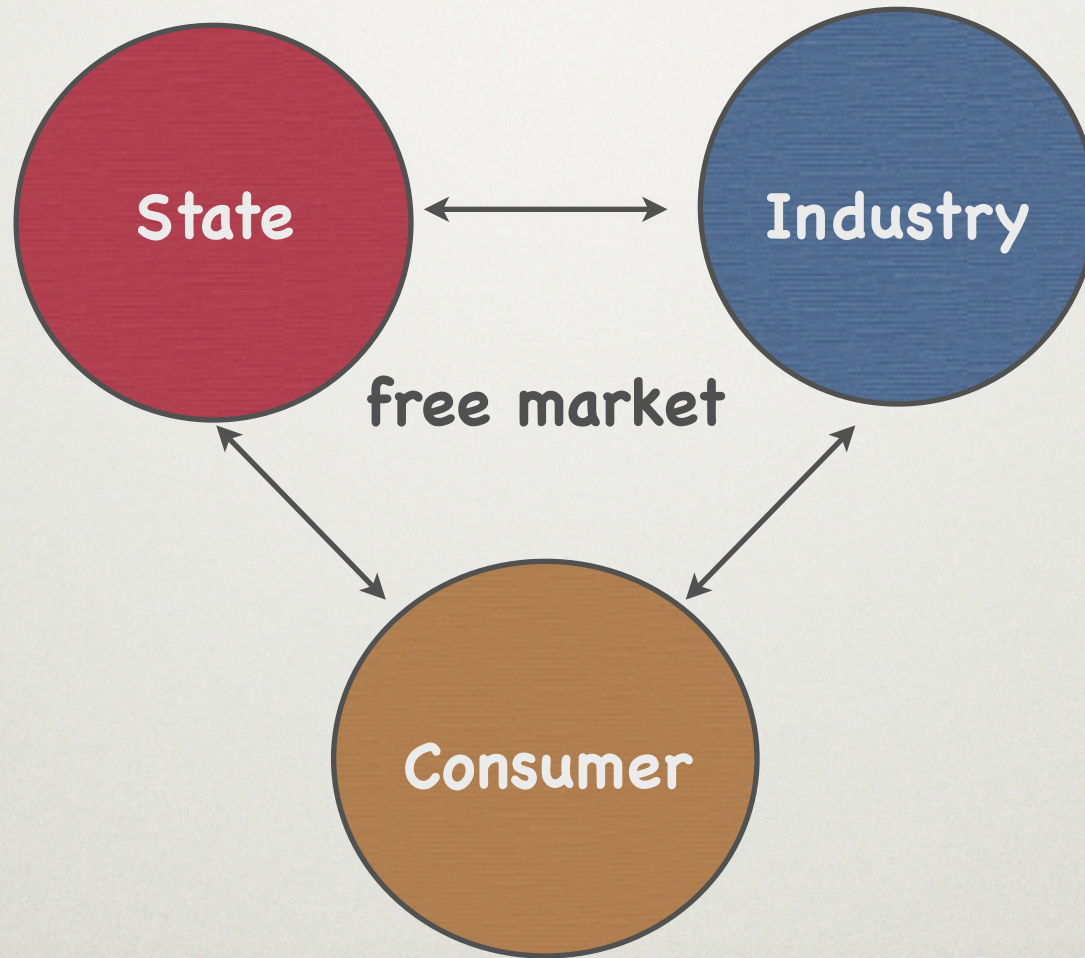
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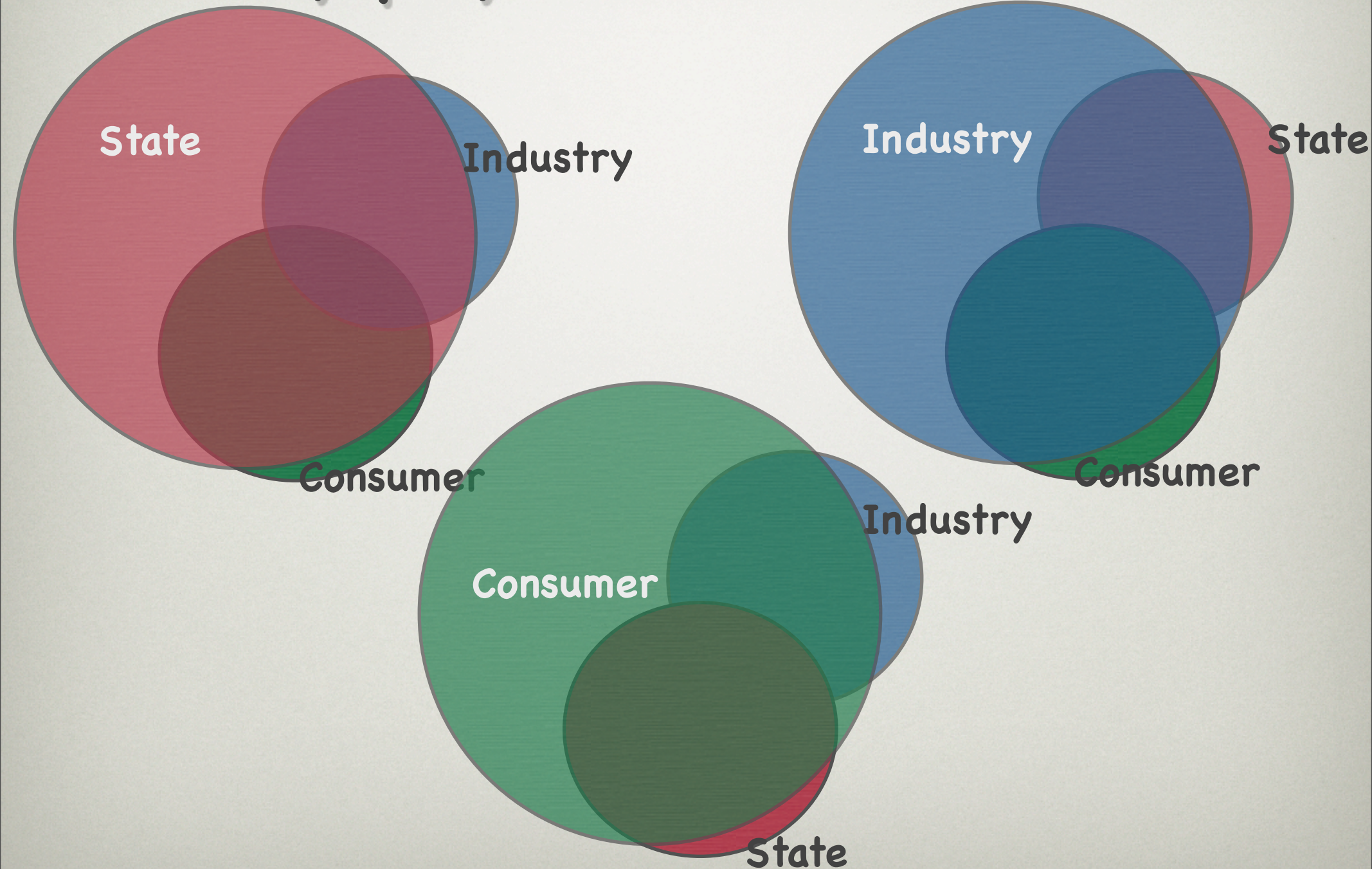
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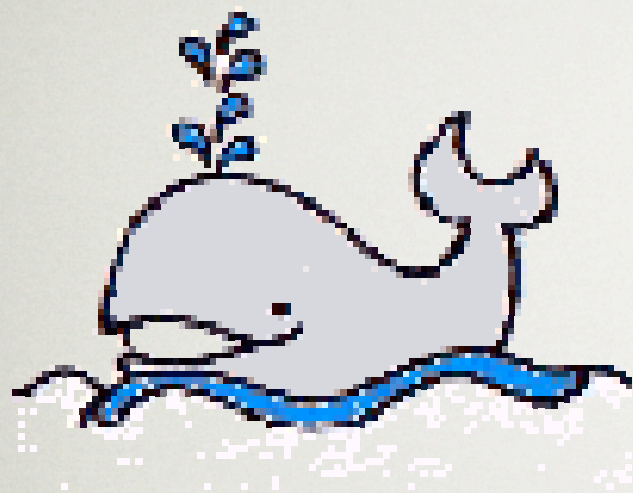


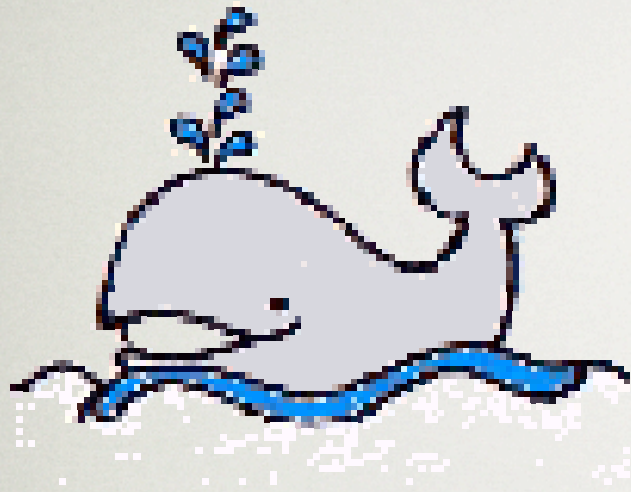
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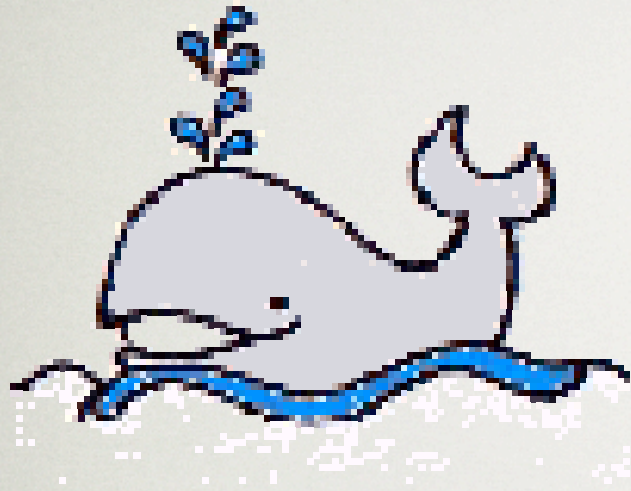
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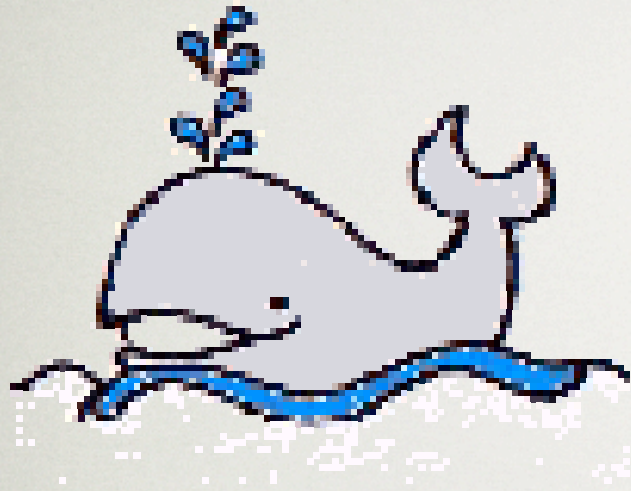


How can you tell whether
a whale is a mammal or a fish?



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Let's TAKE A VOTE?

How can you tell whether
a whale is a mammal or a fish?



A "win and lose" determinants

Any discussion could be constructive if participating parties have comparable knowledge of the subject

An ordinary (general) person has knowledge not of a subject but of his personal concerns - he knows what he is afraid of on a personal basis, and normally has no (and need not to have) knowledge about the new and how he can personally benefit from it

A "win and lose" determinants

"Reasoning of an ordinary (general) person very often seems very logical though based on ignoring reality. This reasoning is immediately beaten while coming into contact with the reality". (L.Gumilyov, "Ethnogenesis and biosphere of the Earth")

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Public perception of a product/technology to which everyone refers DOES NOT exist - in reality it is the trust of people into this or that active group

A KEY TO TRUSTFUL COMMUNICATION

UNIDO's *Global Biotechnology Forum*, 2003

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A system of national institutions whose data will be recognized both nationally and internationally

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Regional/sub-regional networks

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Mega-network

UNIDO's Global Biotechnology Forum, 2003

Background

BSBA was established in June 2004

★ as an International Public Non-profit Association

★ as a Network of Countries with:

★ historically Similar Agricultural Needs,
Priorities,

★ often best developed practices in agriculture
and agro-biotechnology

Nine most scaring words in English:

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I'm from the government and I'm
here to help

Nine most scaring words in English:

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Ronald Reagan



About us

Members

Five member countries:

- Bulgaria
- Romania
- Russia
- Turkey
- Ukraine

Associate member:

- Serbia

Candidate:

- Georgia
- Greece





About us Members

BSBA is governed by Board of Directors:

Composed of Ag biotechnology experts and recognized authorities in biotechnology that are serving in managerial roles in leading academic research institutions in the Black Sea region



Bulgaria

Prof. Atanasov,
President



Russia

Dr. Golikov,
Executive Secretary



Russia

Prof. Kharchenko



Ukraine

Prof. Blume



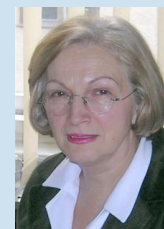
Turkey

Dr. Kaya



Romania

Prof. Badea



Serbia

Prof. Milosevic

in consultation with BSBA Board of Trustees:

Composed of experts from around the world, that bring a global perspective of the Ag biotechnology developments and have a comprehensive experience in agricultural biotechnology and have worked for their entire careers in the development of better products and/or in the transfer of appropriate technologies to many countries that lag behind. They assist in the aspiration of BS region to catch up with Western Europe and other parts of the world



Belgium

Prof. Van Montagu,
Chairman



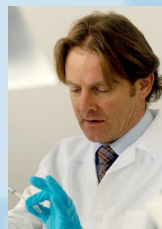
USA

Dr. Krattiger



Russia

Prof. Skryabin



Italy

Dr. Van Den Eede



USA

Mr. Dougherty



France

Dr. Kearns



Romania

Prof. Otiman



Romania

Prof. Hera

Goal:

To contribute to a science based transparent counterweight to antibiotechnology "wave" at national, regional and international levels; to promote biotechnology at any possible operational level

Activities in cooperation with (establishing the Mega-Network):

- ★ ScanBalt - MoU signed
- ★ PRRI - MoU signed
- ★ ISBR - MoU in preparation
- ★ ICBSS - MoU in preparation
- ★ OECD
- ★ JRC (EU)
- ★ UNIDO
- ★ ICGEB (as an affiliated center)
- ★ Assistance to EU in FP7
- ★ Industry (CLI and BIO) - regional outreach for the CBP

Activities:

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★ **BSBA forums - Istanbul, Sofia, Yalta, Moscow**

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- ★ Young generation

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- ★ Centers of excellence
- ★ Regional workshop & training courses
- ★ Consensus documents on environmental & socio-economic assessment of staple crops with the view of promotion of locally developed crops!

BSBA activities for 2006



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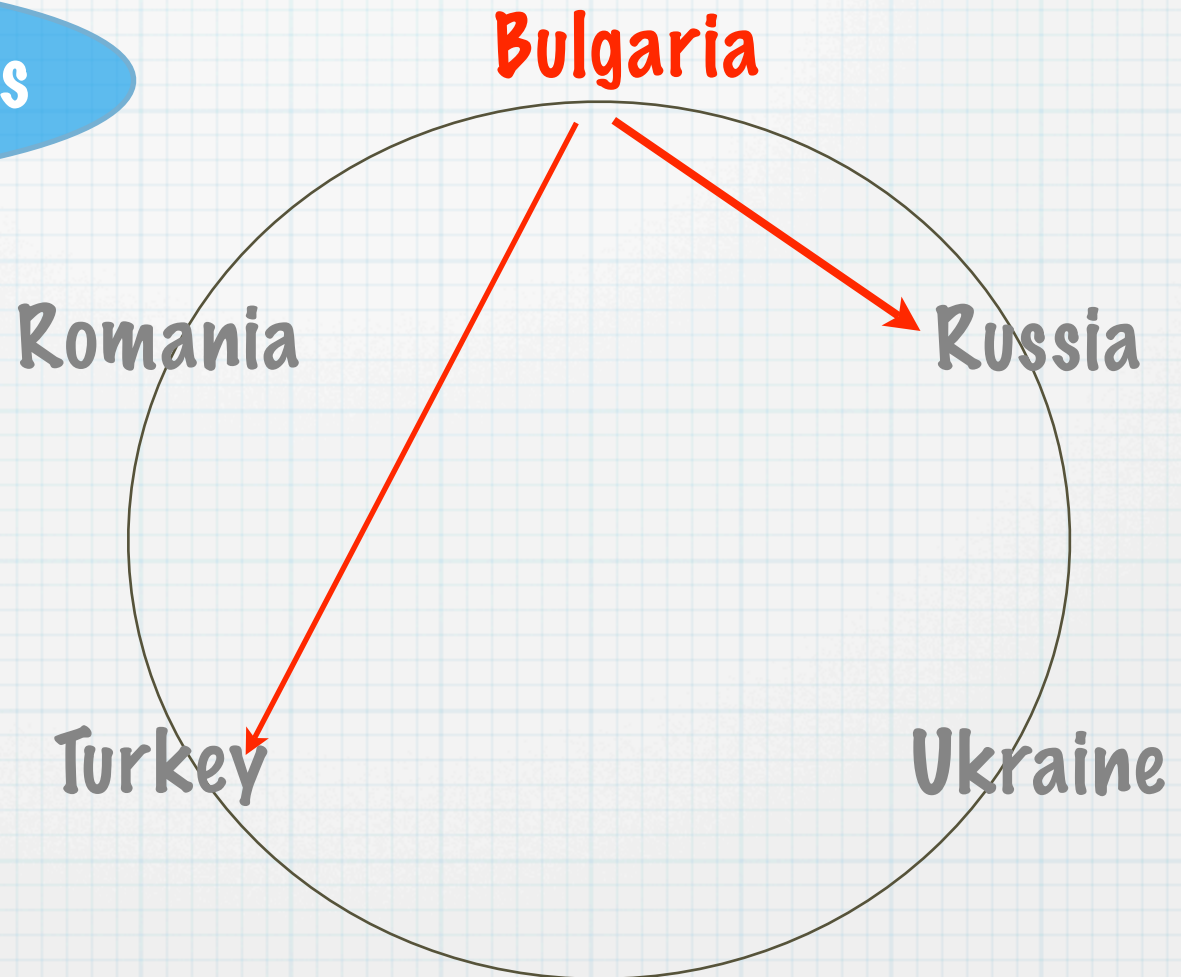
Consensus documents



BSBA activities for 2006

Consensus documents

MAIZE

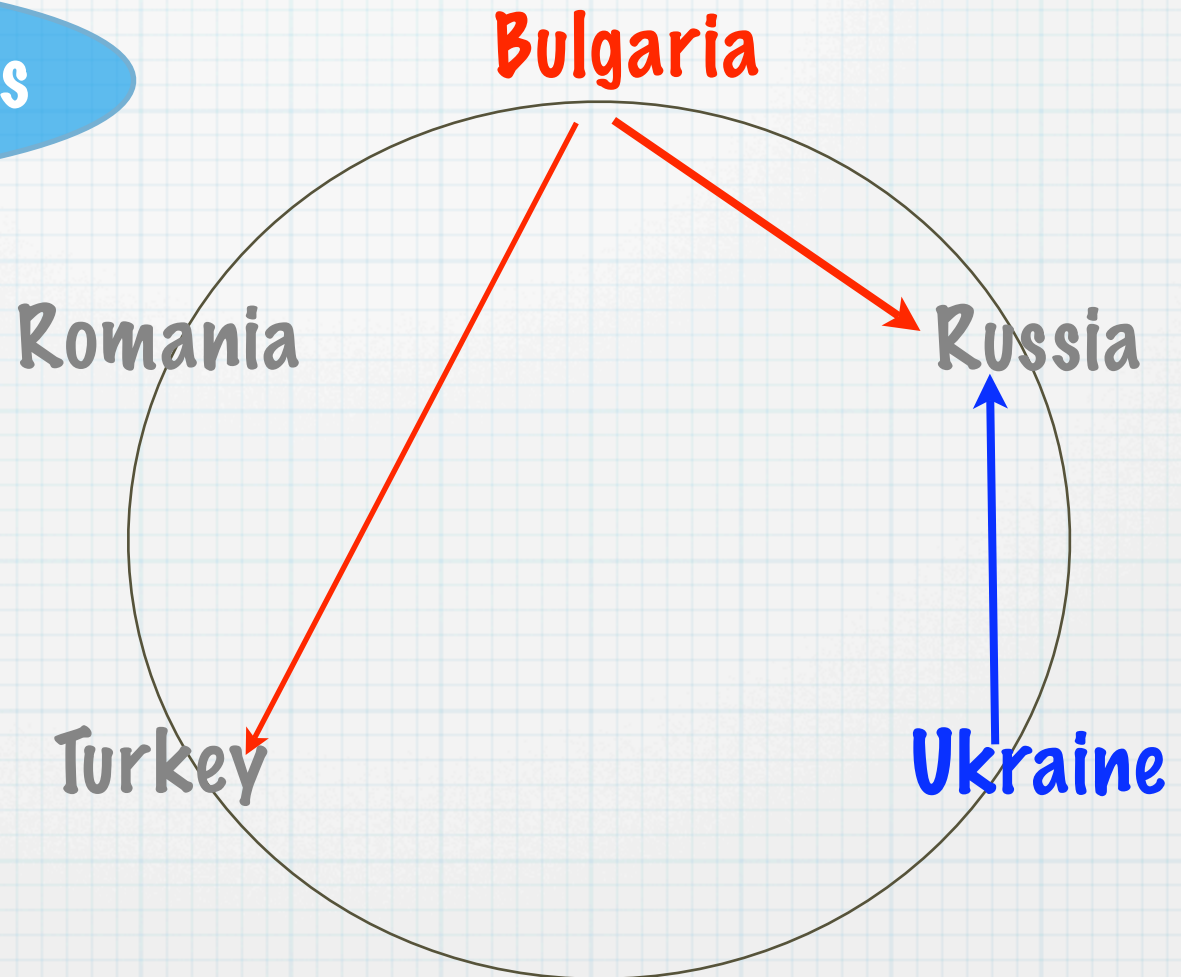


BSBA activities for 2006

Consensus documents

MAIZE

SUGAR BEET



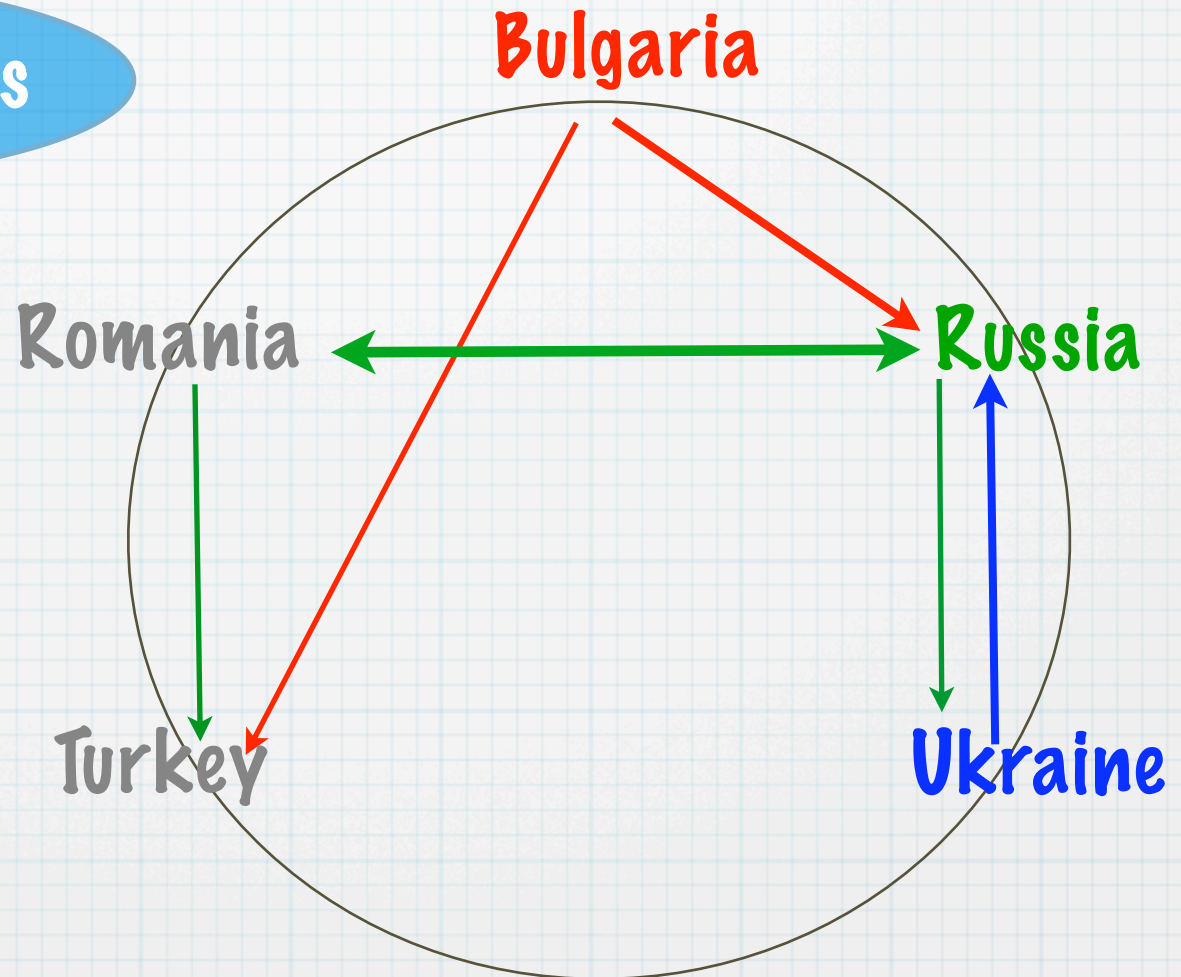
BSBA activities for 2006

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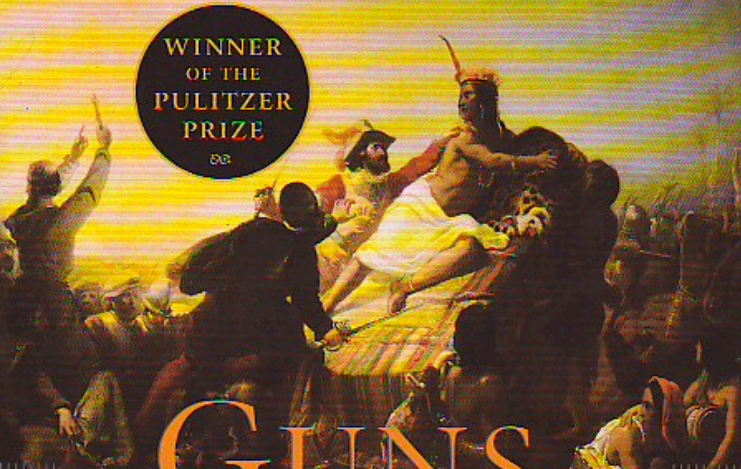
SOYBEAN



NEW YORK TIMES BESTSELLER

"The scope and the explanatory power of this book are astounding." —*The New Yorker*

WINNER
OF THE
PULITZER
PRIZE



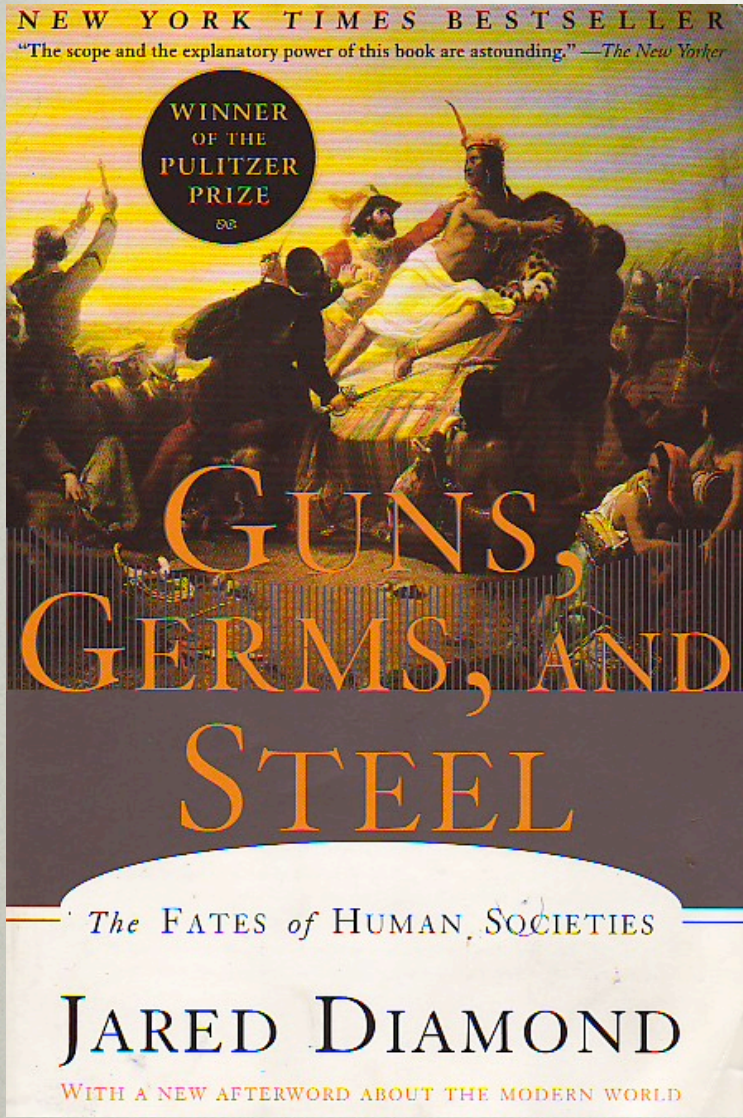
GUNS, GERMS, AND STEEL

The FATES of HUMAN SOCIETIES

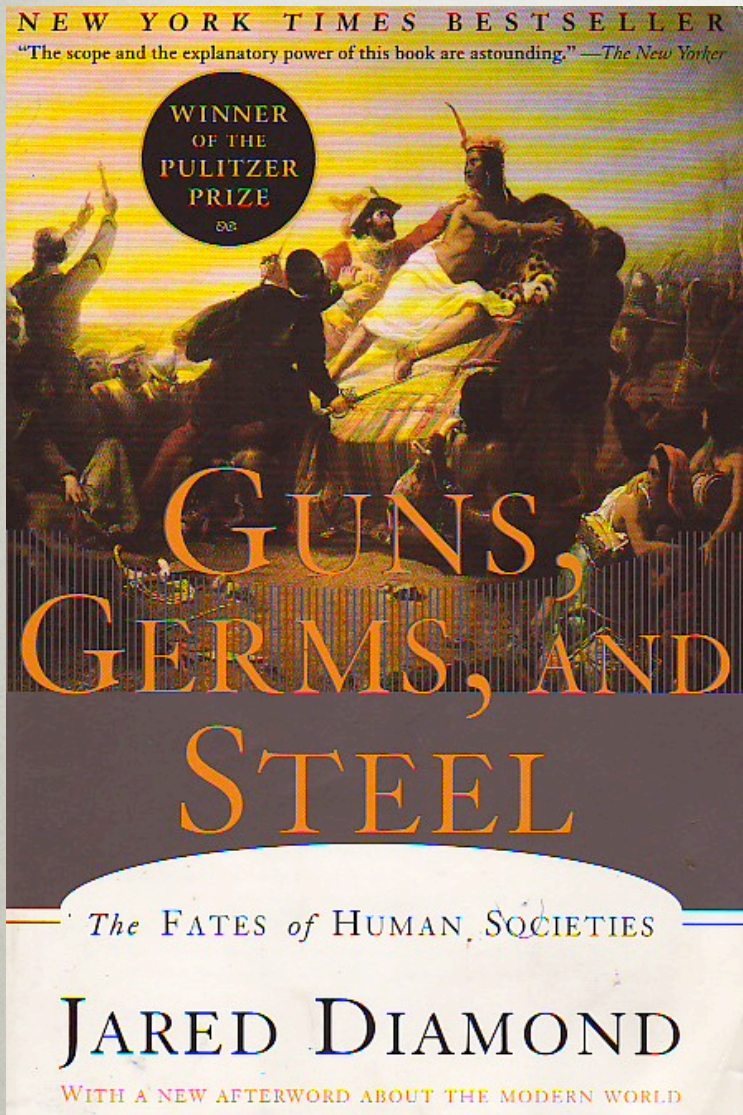
JARED DIAMOND

WITH A NEW AFTERWORD ABOUT THE MODERN WORLD

YALI'S QUESTION

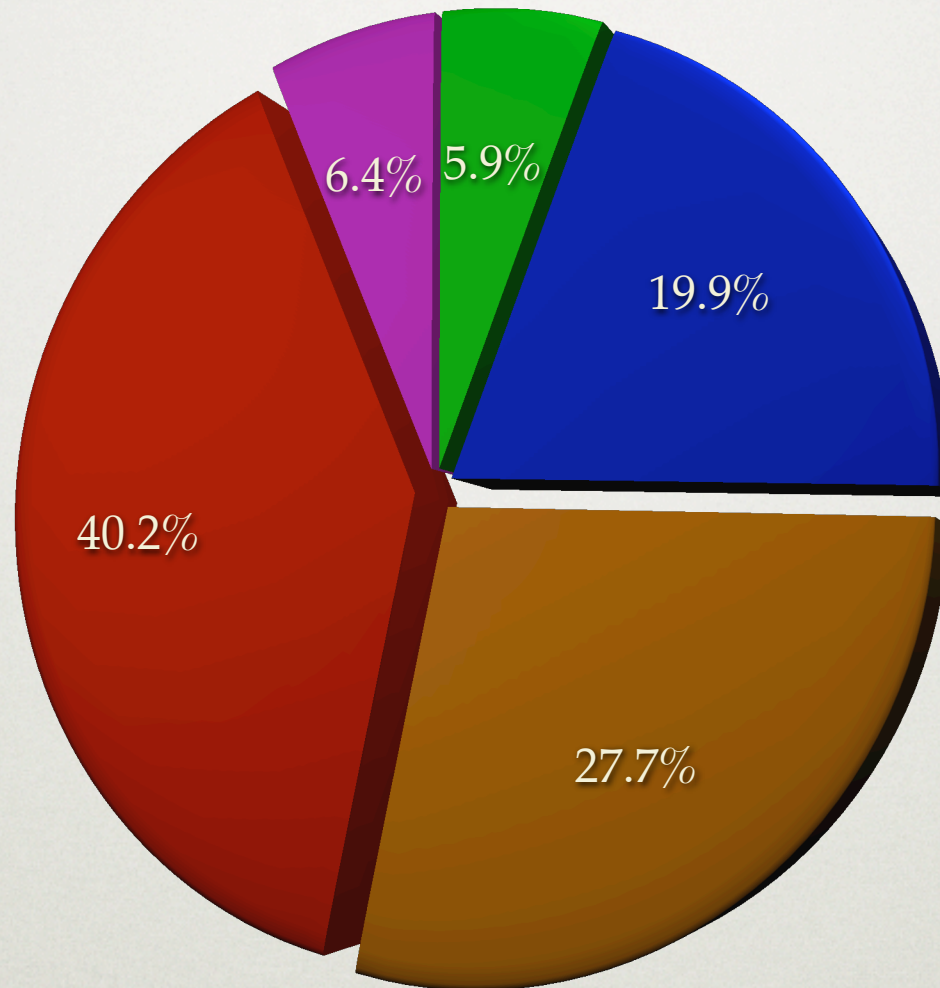


YALI'S QUESTION



Why do you produce cargo and we don't?

● Consumer ● Farmers ● Biotech firms ● Seed firms ● ROW



Shares of estimated world benefit from HT soybeans

Source: Price et.al, 2003

RR Soybean, Romania, 2005



Source: Prof. Elena Marcela Badea

Is European Union really anti-GE?

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190 approvals for field trials in last 3 years , 98 in 2006, 10 countries

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Guidelines for strategies for co-existence!!! (2006)

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There are two options as a result of such an attempt:

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Solution - CO-EXISTENCE

**MULȚUMIRI
TUTUROR
PENTRU
RĂBDARE!**