# IFORS: OR for the world

Dominique de Werra President IFORS ICORES Vilamoura, February 2012



## IFORS to-day

- The International Federation of Operational Research Societies (IFORS):
  - Founded in 1959 by UK, USA and France
  - After 53 years, more than 50 national societies.

## Some of IFORS Objectives

 Promote the development of Operational Research (OR) worldwide, both in methodology and practice.

 Link the member societies and regional groupings.



#### IFORS, OR for the world

- Present priority actions:
  - Communication
  - Technical Publications
  - Scholarships
  - Developing Countries
  - Conferences, IDL and ITT
  - (Inter-)regional Activities



# **The Newsletter**



**Favorites** 🤗 IFORS - International Federation of Operational R...









Page ▼ Safety ▼ Tools ▼

















International Federation of Operational Research Societies

**About Us** 

**Publications** 

Conferences

**Developing Countries** 



Scholarships



Google™ Custom Search

Search



The International Federation of Operational Research Societies (IFORS) is an umbrella organization comprising the national Operations Research societies of over forty five countries from four geogr aphical regions: Asia Pacific, Europe, North America, South America

Total membership is over 30,000 persons. IFORS' mission is to promote Operations Research as an academic discipline and a profession.



#### **IFORS Distinguished Lectures**

IFORS Prize for OR in Development

IFORS Hall of Fame

Photo Gallery

#### ONLINE RESOURCES

**Education Resources** 

Tutorial

#### CONTACTUS

Comments / Inquiries

Apply for Membership

#### MEMBERS AREA

Update Your Annual Return

Cast Your Vote

Who's Travelling

Discussion Board



Wednesday, 10:02 PM, December 2nd, 2009





Operations Research still has no good name!

OR has no good definition!

It is nevertheless a recognized discipline!!

#### BUT AFTER ALL WHAT IS OR?

Many attempts of definitions for more than 50 years:

Science of better (R.C. Larson)

Analytics (H.Mueller-Merbach)

OR has progressed by getting inspiration from other fields (like electricity for network flow techniques, life sciences for genetic optimization procedures, metallurgy for simulated annealing, etc.)

In this way it has become a really interdisciplinary science.

But essentially the priviledged domains of action of OR are essentially the **complex systems**.

#### **About complex systems**

They occur both in nature (life sciences) and as human constructions in new technologies (technical systems, networks, etc).

In the first case they serve as an inspiration for developing OR optimization procedures and in the second they provide a stimulating context in which OR methods could be applied for managing and operating purposes.

# THE DESPERATE SEARCH FOR AN IDENTITY...

« OR is the discipline which, by combining methods from many scientific fields, aims at modelling, understanding, managing and optimizing complex systems. »



H.Scolnik, IFORS Newsletter Dec 2010

# Progresses from 1988 to 2003 (linear optimization)

Improvement of computers

800x

Improvement of algorithms

2360x

Giving a global acceleration (algorithm x computer) of

1 900 000x

(from R.Bixby)

#### Some characteristics

Technical ability to handle huge amounts of data

Risk management models

### OR gets many stimulations

New technologies (communication, transportation, etc)

Energy

Natural resources

Emergency management

. . . . .

Applications stimulate development of new techniques Availability of new tools generate new applications

## OR in Developing Countries

See survey by Leroy White in IFORS Newsletter (Dec 2011)

Empowerment of women

Healthcare

Combating HIV/AIDS, malaria, etc

Natural disasters, humanitarian logistics

#### Education for whom?

Students (in OR!)

#### Potential users

IFORS supports courses in many countries (scholarships, teaching personnel, etc)

IFORS Invited Tutorials in conferences

« OR cannot solve all problems in the world, but if we do not try to solve what we can, who will do it? »