

From Portugal to The Netherlands Philips International Institute



INTERNATIONAL VISION

“ IT IS A SMALL WORLD...”



From Portugal to The Netherlands Philips International Institute



**DEVELOPING
NEW
FRIENDSHIPS**

From Portugal to The Netherlands Philips International Institute



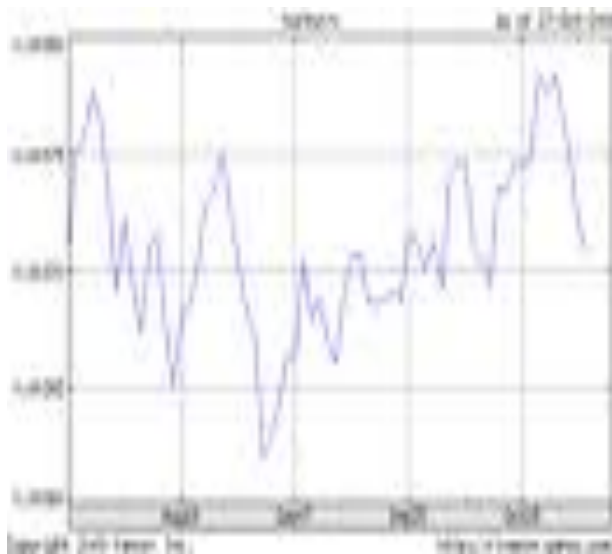
DEVELOPING SKILLS AND VALUES

VALUE OF EFFORT

VALUE OF TIME

AFTER PII

BUSINESS EXPERIENCE



Semiconductor industry

Telecommunications

Information systems

AFTER PII

CONNECTION BETWEEN BUSINESS EXPERIENCE AND ACADEMIC BACKGROUND



2000 Starting research further studies

2005 Ph.D degree

THESIS

THE CONCEPT OF ACTION FOR
MEASUREMENT OF INNOVATION

MEASUREMENT OF INNOVATION

**INNOVATION
SO MANY DEFINITIONS...**



HOW TO DEFINE MUSIC ?

**MUSIC... “IS SOUND IN THE AIR”...
THE PERCEPTION OF THE SOUND IS INDIVIDUAL**

HOW TO DEFINE INNOVATION ?

**INNOVATION... INNOVARE...
“DO SOMETHING NEW”
MANY DIFFERENT PERSPECTIVES**

MEASUREMENT OF INNOVATION

SEC XVII - CONCEPT OF ACTION

...

LEIBNIZ

EULER

LAGRANGE

D'ALEMBERT

HAMILTON

...

MAUPERTUIS - PRINCIPLE OF MINIMUM ACTION

MEASUREMENT OF INNOVATION

**ACTION IS DEFINED AS A PRODUCT OF
ENERGY AND TIME**

**THE ENERGY NEEDED TO ACHIEVE A TASK
AND**

**THE TIME PERIOD USED TO ACHIEVE ALL OPERATIONS
ARE THE MEASURED PARAMETERS**

MEASUREMENT OF INNOVATION

DURING DYNAMIC EVOLUTION OF A PROCESS

ACTION

IS MEASURED

WHEN THE ACTION IS REDUCED THERE IS

INNOVATION

IF NOT REDUCED, IT IS ONLY A NEW ACTION

MEASUREMENT OF INNOVATION

RELATIVISTIC MEASURE OF PRODUCTION ACTIVITIES

**IT WAS CHOSEN TO MEASURE INNOVATION IN A PROCESS
AND EVALUATE THE GLOBAL RESULT IN THE ORGANIZATION**

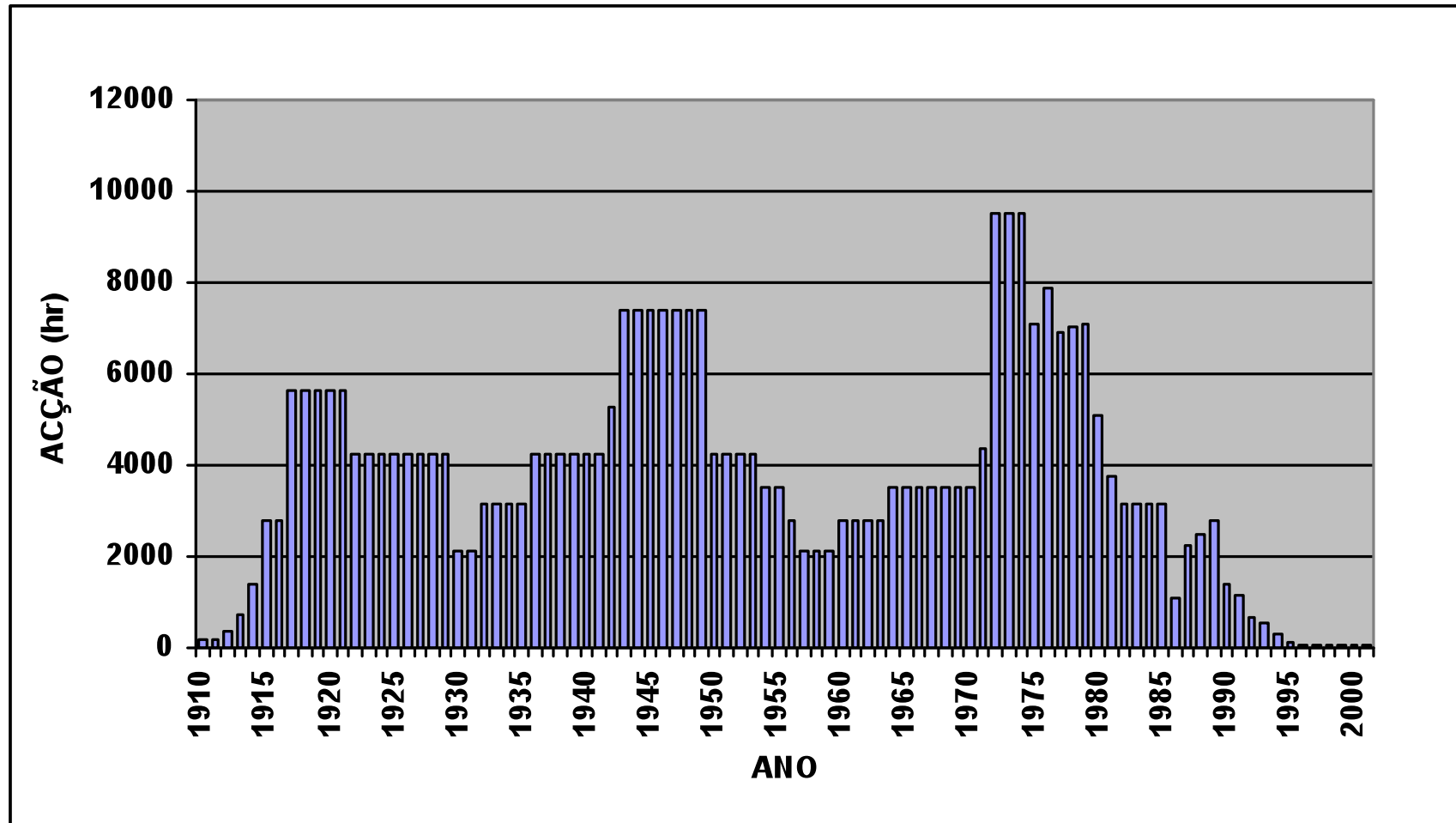
PROCESS

INSTALLATION OF FIXED TELEPHONE LINES

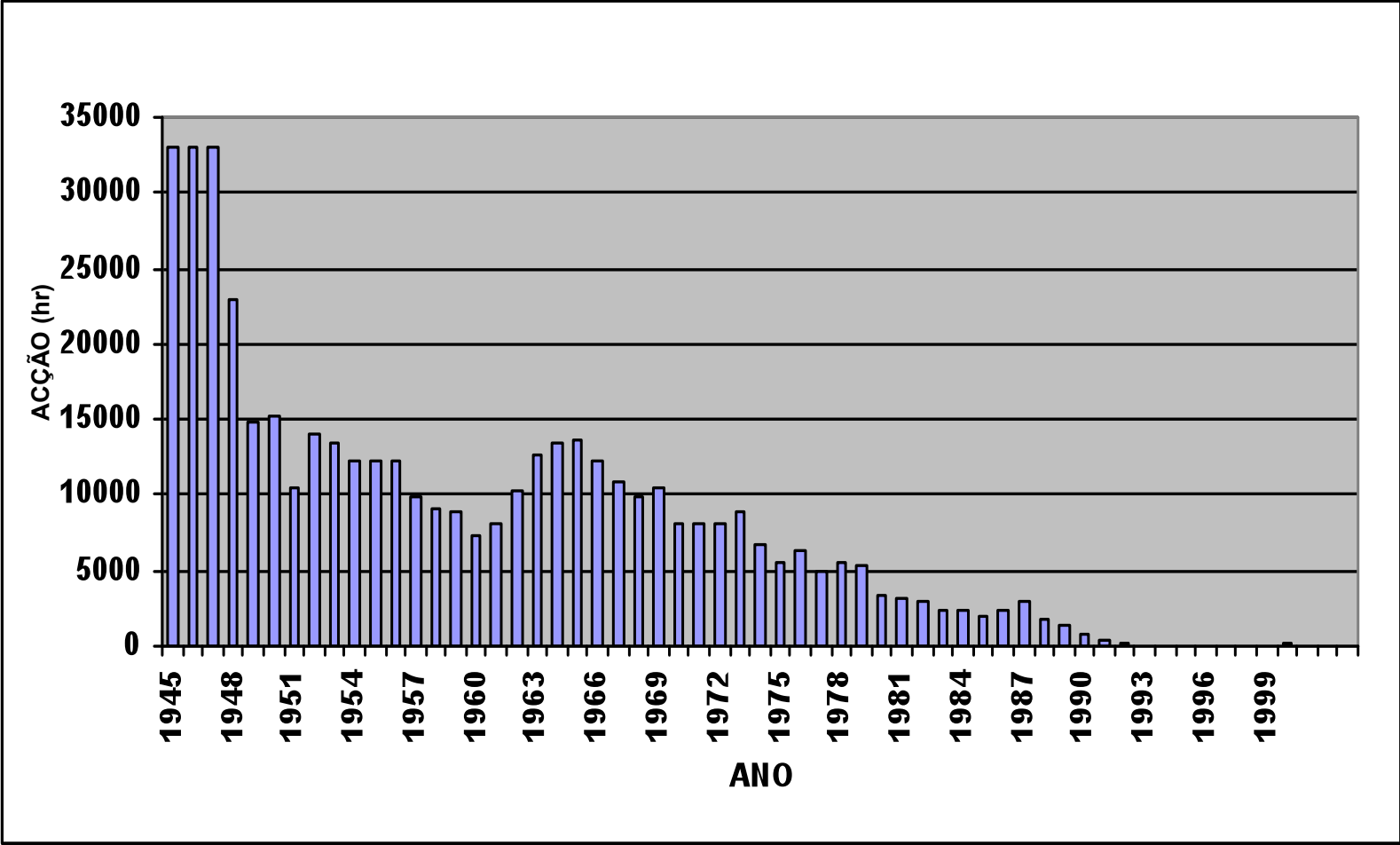
**DATA WAS COLLECTED DURING A SIGNIFICANT TIME PERIOD
IN TWO TELECOMMUNICATIONS COMPANIES
PORTUGAL TELECOM AND TELEFONICA - SPAIN**

MEASUREMENT OF ACTION

PROCESS OF TELEPHONE INSTALLATION IN PORTUGAL



MEASUREMENT OF ACTION PROCESS OF TELEPHONE INSTALLATION IN SPAIN



MEASUREMENT OF INNOVATION

DYNAMICS OF INNOVATION

**CARACTERISTICS PERIODS OF OSCILLATION WERE FOUND
USING SPECTRAL ANALYSIS**

**DATA CORRELATION WAS ANALYSED
RELATED TO**

**TECNOLOGIES EVOLUTION
ORGANIZATION
MANAGEMENT
SOCIAL ENVIRONMENT**

MEASUREMENT OF INNOVATION

PROCESS

INSTALLATION OF ADSL LINES IN TELEFONICA - SPAIN

**THE MEASUREMENT OF ACTION IS APLIED TO MEASURE
EFFORT PRODUCTIVITY TO REACH
INNOVATION**

**RELATIONSHIP BETWEEN
INVESTMENT EFFORT AND PERIODS OF INNOVATION**

MEASUREMENT OF INNOVATION

THE INNOVATOR'S TOOLKIT

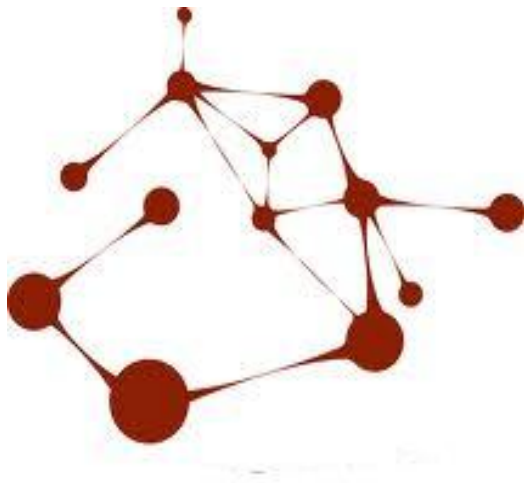
THE APPLICATION OF THE ACTION CONCEPT

IS A NEW TOOL

TO MEASURE INNOVATION

USING ONE SINGLE PARAMETER

MEASUREMENT OF INNOVATION



INNOVATION

**IS CONSIDERED AS A
MANAGEMENT TOOL
TO MEASURE THE ORGANIZATION
EFFICIENCY AND EFFICACY**

**PHILIPS INTERNATIONAL INSTITUTE
EINDHOVEN INTERNATIONAL INSTITUTE
EINDHOVEN UNIVERSITY OF TECHNOLOGY**



GREETINGS

**MANY THANKS
FOR YOUR WELCOME**