



International Labour Office
CINTERFOR

The Inter-American Centre for Knowledge Development in Vocational Training

ILO/Cinterfor Knowledge management in vocational training and South- South cooperation

Athens. November 15, 2011

Fernando Vargas
Skills development specialist





International Labour Office
CINTERFOR

Skills development network

An ILO service for the world of vocational training



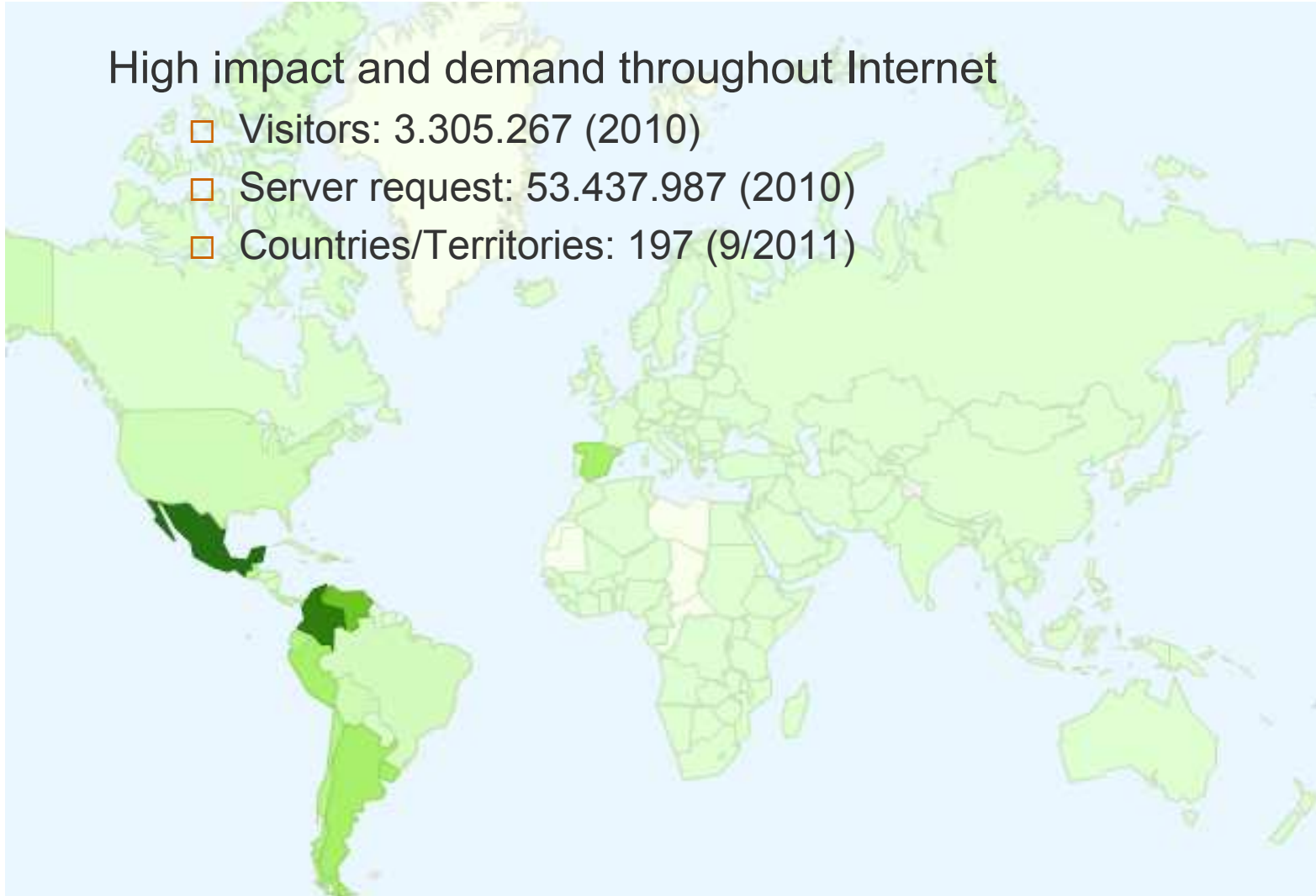


International Labour Office
CINTERFOR

ILO/Cinterfor network figures

High impact and demand throughout Internet

- Visitors: 3.305.267 (2010)
- Server request: 53.437.987 (2010)
- Countries/Territories: 197 (9/2011)





Knowledge sharing platform

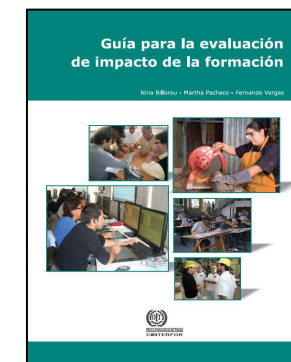
- Data bases
 - **Teaching resources bank:** over 12.000 ... highly valued
 - **Experiences:** more than 200,
 - **Competencies:** exceeding 6.000 from more than 20 countries
 - Specialists: 150 CVs
- Learning communities
- Search engines for courses and teaching materials
- Registered users: 8.590 around the world (9/2011)





Collective knowledge construction

- **Design and implementation of NQF. Guidelines.**
 - Critic issue in the region
 - Regional perspective
- **Skills development impact evaluation. A practical guide:**
 - Learning and practice community (+ 110 experts from 60 country members)
 - Sharing experiences, knowledge and good practices.
 - Interactive guide online
- **ICT Guide for MSME:**
 - Using ICT for skills development
 - Team working: SENAI-IEL, INTECAP, INFOTEP, SENA and ITU.
 - Practical and innovative solutions for MSMEs.
 - More than 200 MSMEs in 5 countries





International Labour Office
CINTERFOR

South-South cooperation

- ILO/Cinterfor network
 - Global reference in skills development.
 - 50 years in South-South cooperation
 - Knowledge management and innovation
 - ILO core values committed
- All the knowledge is sharing between the network, in practical and specific projects





Short and medium term working areas:

- Digital competencies for MSMEs (m-learning).
- Social dialogue and productivity
- Labor competencies, youth, employment and enterprise development
- Skills and regional integration
- Statistics and anticipation of skills demands

- High interest for next year:
 - Relations between education and the world of work
 - Skills and environment



¿Is the training death?: The “old model” of training



Before: Teacher as a unique source



Now: 4 learning sources

ICT

Teachers
(facilitators)

Team working

Environment





International Labour Office
CINTERFOR

South-south cooperation: an example

SENAI Prospective Model





SENAI Prospective Model

- Has been designed to respond:
 - ¿how many workers should be trained in the future?
 - ¿which profile?
 - in order to reduce possible structural mismatches of labour force supply and demand?

- The Model provides for prospective actions (delphi investigations prospective studies of technology and organisations, experts panels) and trend analyses (econometric modeling) in the fields of Vocational Training and Technological Services.



MONITORING

**Technological
Foresight**

**Organisational
Foresight**

**Analysis of
Occupational
Impacts**

**Analysis of
Occupational
Trends**

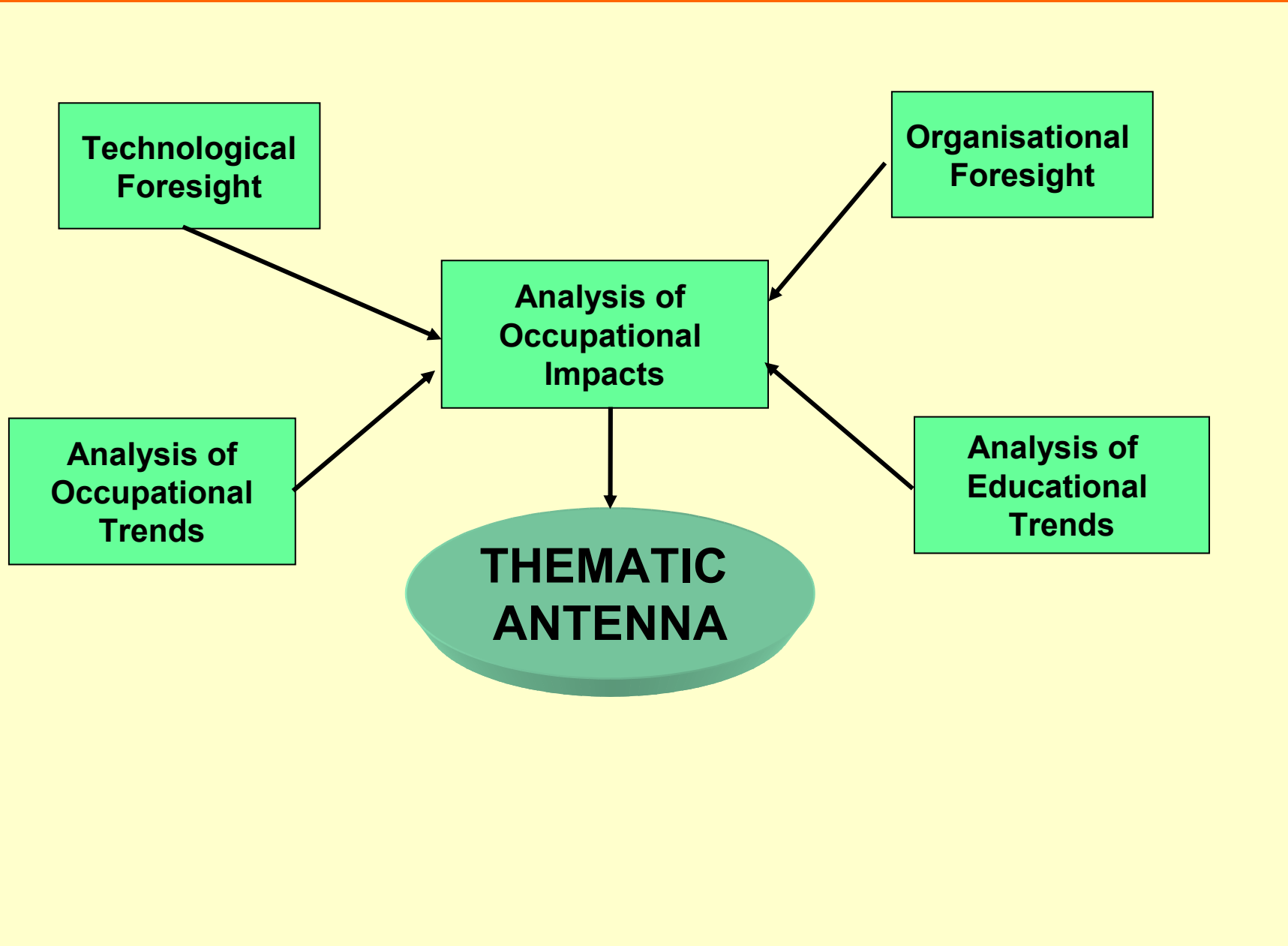
**Analysis of
Educational
Trends**

**THEMATIC
ANTENNA**

MONITORING

MONITORING

MONITORING





Definitions

- **Emerging technologies** with the greatest chance of dissemination in the next 5 or 10 years in a specific sector or industry in Brazil
- **Organizational trends** with the greatest chance of dissemination in the next 5 or 10 years in a specific sector or industry in Brazil
- **Educational trends** in the evolution of skills of SENAI's target group and the identification of educational gaps in that group, in view of the possible dissemination of emerging technologies
- **Occupational trends** in jobs for the sector or industry in a 5-year time horizon, in view of the possible dissemination of emerging technologies
- **Occupational impacts** that might result from the dissemination of emerging technologies and the consolidation of organisational trends
- **Thematic Antenna:** the moment when Recommendations are produced by connecting and putting into context all the previous stages.



Application of the SENAI Prospective Model generates information products aimed at different interest groups.

- **Recommendations**
 - **Map of industrial work**
 - **Map of technology**
 - **Map of education**
 - **Newsletters**
 - **Studies and research**
-
- Publications produced: in the period 2004 - 2011 (1st quarter) the SENAI Prospective Model prepared **166 publications**.

 - Publications distributed: in the period 2004 - 2011 (1st quarter) **73,300 publications** were distributed to Regional Departments, companies and other actors of the Brazilian industrial sector.

Use National Sectoral Technical Commissions

- Diesel motor mechanic
- Industrial automation technician and technologist
- Construction technician
- Electro and electromechanical technician
- Electronics technician
- Mechanical manufacturing technician and technologist
- Shipbuilding technician
- Chemical technician
- Environmental technician
- Sugar and alcohol technician
- Tanning and leather technician



Use: Recommendations (Machines and Equipment)

- **Emerging Technology with likelihood of dissemination:** Virtual Reality
- **Affected occupation:** mechanical and mechanical manufacturing technician
- **Occupational Impacts**
 - *New knowledge:* CAD, computing, simulation software and advanced mathematics
 - *New skills:* Abstract thinking, the ability to work and connect in multi-functional groups
 - *New attitudes:* Adapting to change and having a more holistic view of the process
- **Educational gaps**
 - Prerequisite: Problem solving by recognising graphs of exponential functions (3rd year of high school)
- **Work forecast for the next five years (annual mean)**
 - 500 to 999 jobs/year
 - The dissemination of technology does not impact the jobs forecast

Use: Recommendations (Machines and Equipment)

Curriculum Innovation

- The updating of technical courses in mechanics by including content on **basic IT associated to knowledge of applied software.**

Supply of courses

The supply of specialisation courses in:

- **Sector specific Information Technologies**
- **CAES, CAD and 3D software**

Observation of education

- Following the changes in the significant legislation for vocational training.
- Promoting discussions for the positioning of leaders in the face of changes

Observation of Occupations

- Monthly follow-up of the evolution of employment by industry and by job
- Production of updated employment forecasts on the basis of significant reversals in economic trends
- Informing leaders about such changes



International Labour Office
CINTERFOR

Industries studied

- Textile industry
- Petrochemical industry
- Machines and Equipment industry
- Telecommunications industry
- Civil Construction industry (buildings)
- Footwear industry
- Food industry (meats)
- Foundry industry
- Shipbuilding and repair industry
- Industrial automation industry





International Labour Office
CINTERFOR

*"We must have dreams and be willing to take on risks
with new ideas and work methodologies."*

*Mr. Juan Somavía, 2009,
ILO Director-General*

TRABAJO DECENTE

Un mundo mejor comienza aquí.

**Thank you for your
audience**



vargas@oitcinterfor.org

