The TSP Initiative in Colombia

Strategies for Adoption and Plans for the Future

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Paola Restrepo
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About the Presenter

Yuri Ontibon

23 years of experience

Computer Engineering and Graduate Degree in Business

SEONTI’s Co-founder and Director for Latin America

Certifications:

- PSP Developer
- PSP Instructor
- TSP Coach
- TSP Mentor Coach
- PMP
- ITIL
- Scrum Master

13 years of experience in TSP and CMMI

CEO, COO, IT Director and Consultant in several companies in Latin American
IT Industry in Colombia

Number of companies: 3662 (May 2012)

Export: 75 Millions USD (May 2010)

Sales: 1,400 millions of USD (May 2010)

TSP Projects: 10 (Aug 2012)

CMMI: 16 level II, 10 level III, 3 level IV, 5 level V (Mar 2012)

Associated Companies: 244 (May 2012)
IT Industry in Colombia

Size of Companies

Micro: <= 10
Small: > 10 and <= 50
Medium: > 50 and <= 200
Big: > 200
The Initiative
Colombian Federation of Software and Related Industries

www.fedesoft.org
• Non for profit organization founded in 1987
• Works to foster Software and IT Colombian industry
• Promote the relation between entrepreneurs, academy, government and other related industries and actors, to position the country as a world class Software and IT producer
• Communication channel between the Software and IT industry and governmental institutions to develop public policies
• Promoting the adequate standards of the industry in terms of quality, human resources and infrastructure
• Promoting Colombia as a Software and IT producer in the international arena
• Promoting the use of Software and IT in other industries
• Representatives of the Software and IT industry in international forums and international organizations
• SENA: National Service of Learning
• Public institution
• Founded in 1957
• Invest in the Social and Technical Development of Colombian Workers
• Providing free training for the incorporation and development of people in productive activities
Ministry of Information Technologies and Communications

Strengthening of IT Industry

2012
FITI GOAL

Duplicate the value of sales in IT Industry.

From 2010 to 2014
STRENGTHENING TECHNOLOGY INDUSTRY INFORMATION -FITI-
FOR ACHIEVING.....
«Intelligence Technique of the Shoal»

A Shoal, directed to National Development
• Program for Certification of PSP Developers
• Funding (100%) implementation of CMMI 3 for 60 companies during 2012, 2013, and 2014
• Pre-requisites (any of):
  • CMMI Level 2
  • TSP/PSP
  • IT Mark
Intersoftware is a nonprofit corporation, created in 2004 by a group of software entrepreneurs and related services from this sector, in order to improve competitiveness of enterprises and the wider industry in a partnership model.

Currently brings together **23 companies**, representing **85%** of income and employment generation sector in Antioquia Province/State, Colombia.
TSP/PSP, CMMI-DEV, CMMI-SVC, HM
PSM, PMI, ITIL, Scrum
TSP Initiative Strategy

- Initial Training
- Advanced Training and Certification
- Pilot Projects
- Deployment and Local Capacities
- PSP/TSP in Academia
Initial Training - 2011

- Managers: TSP Executive Strategy Seminar
- Project Leaders: Leading a Development Team
- Developers: PSP Fundamentals
- Others: Team Member Training
Initial Training - 2011

- 1036 People
- 62 Companies

Cost:
- 80% SENA
- 20% Companies
TSP Pilot Projects -2012

• Budget for 16 projects
• Current Status (Aug-2012): 8 projects
• Costs:
  • SENA: 50%
  • Companies: 50%
PSP Developer Certification

- PSP Fundamentals
- PSP Advanced
- Exam (SEI recently released Spanish version)

Costs:
- MinTic: 100%
- Persons: 0%
Colombia is in the Map

PSP Instructors

- JAPAN: 17%
- MEXICO: 34%
- SOUTH AFRICA: 6%
- USA: 2%
- UK: 1%
- KOREA: 2%
- GERMANY: 1%
- EGYPT: 1%
- PORTUGAL: 1%
- COLOMBIA: 1%

Certified PSP Developers

- MEXICO: 71%
- JAPAN: 9%
- SOUTH AFRICA: 9%
- THAILAND: 3%
- USA: 2%
- INDIA: 1%
- CANADA: 1%
- CHINA: 0%
- KOREA: 0%
- UK: 0%
- GERMANY: 0%
Colombia is in the Map

Certified TSP Coaches

- JAPAN
- MEXICO
- SOUTH AFRICA
- USA
- UK
- EGYPT
- COLOMBIA
- GERMANY

23%
55%
7%
4%
2%
5%
2%
2%

Process Dashboard downloads

- Brazil
- Spain
- Canada
- South Africa
- Ecuador
- Peru
- United States
- China
- India
- Mexico
- Thailand
- United Kingdom
- France
- Germany
- Turkey
- Italy
- Japan
- Colombia

Ministerio de Tecnologías de la Información y las Comunicaciones
SENA
Fedesoft
Intersoftware
SEONTI
Companies Using TSP
PersonalSoft Case

• Software Development Company Founded in 1998
• Specialist in Software Engineering and Process Engineering.
• Offices in Medellin and Bogota
• About 300 employees
• Pioneers in the implementation of PSP/TSP in Colombia
PersonalSoft Case Evolution

1998
Procesos

2003
ISO 9K

2009
CMMI
Nivel 3

2010-2011
PSP/TSP

2011-2012
High Maturity
PersonalSoft Case

Results

Effort Estimation Error

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort Estimation Error</td>
<td>38%</td>
<td>21%</td>
<td>16%</td>
<td>8%</td>
</tr>
</tbody>
</table>

38%  21%  16%  8%
PersonalSoft Case

Results

Effective Time in Projects

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>2008-04</th>
<th>2009-02</th>
<th>2010-03</th>
<th>2011-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower month</td>
<td>56%</td>
<td>68%</td>
<td>72%</td>
<td>79%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>2008-11</th>
<th>2009-10</th>
<th>2010-10</th>
<th>2011-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher month</td>
<td>63%</td>
<td>80%</td>
<td>87%</td>
<td>95%</td>
</tr>
</tbody>
</table>
### Results

Quality: Effort in second round of testing

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Effort</td>
<td>48%</td>
<td>36%</td>
<td>25%</td>
<td>3%</td>
</tr>
</tbody>
</table>

![Bar chart showing effort percentages for each year](chart.png)
Challenges for the TSP Initiative

- Coordinate different institutions and funds
- For small companies, cost is an important factor
- Grant funds for next phases
Next Steps

- Initial Training
- Advanced Training and Certification
- Pilot Projects
- Deployment and Local Capacities
- PSP/TSP in Academy
Thank you!

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