

Overview of case studies: Colombia



Case Study: Gerfor (March 2011)

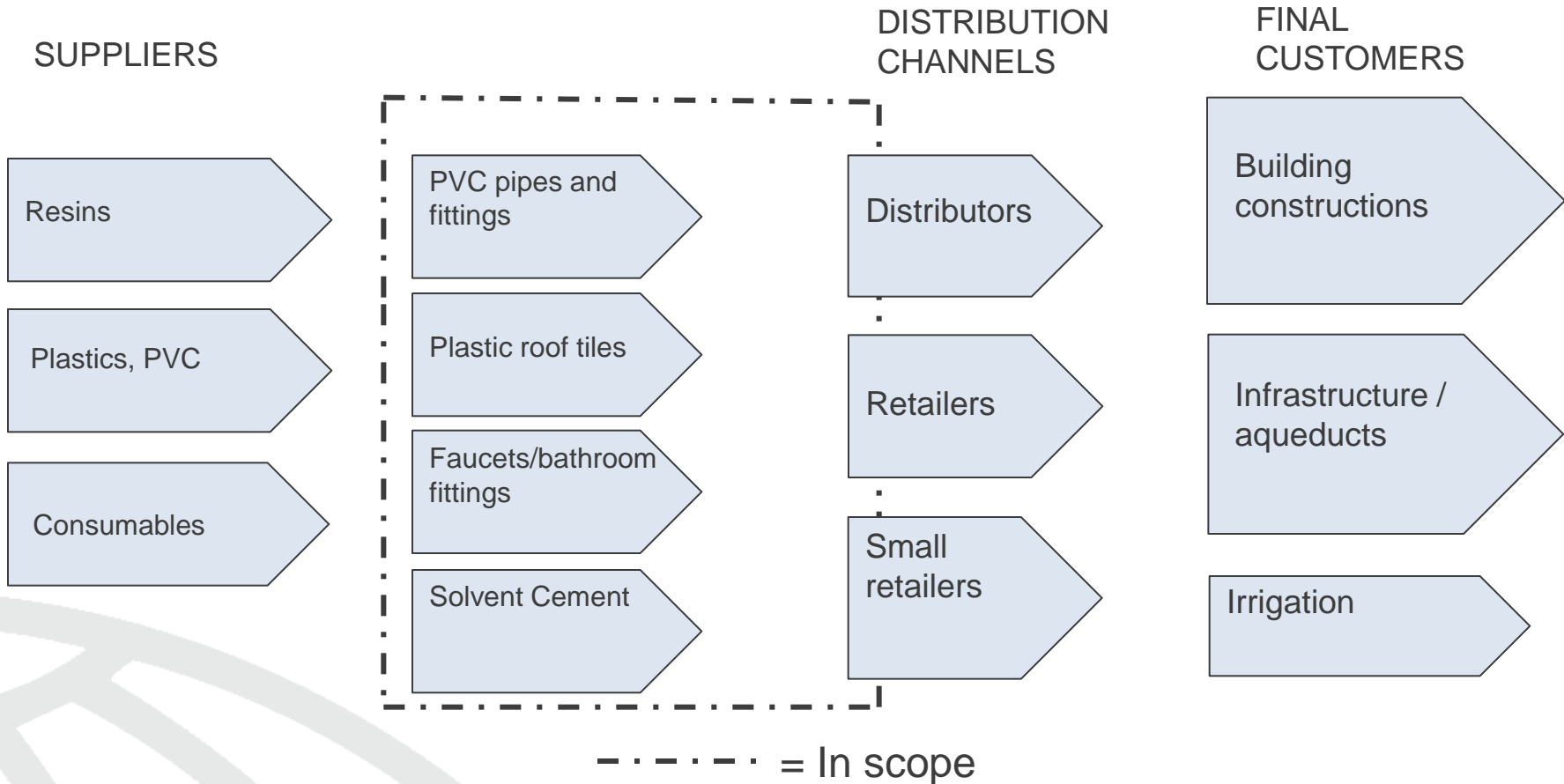
Content

- Examples of application of the ISO methodology to SMEs
 - Manufacturing company in the sector *PVC pipes and accessories*
- Credits
 - ICONTEC: Mrs. Martha Lucia Castro, Ms. Alicia Jaramillo
 - Ms. Constanza Dias (Santo Tomas University, Bogota, Master student, Engineering faculty, MSc in Quality and Management)
 - Daniele Gerundino, Strategic Adviser to the ISO Secretary-General

The company – GERFOR

- The company focuses on the manufacturing of PVC pipes and accessories and is one of the Colombian market leaders
- The company has a strong manufacturing orientation, operates exclusively through distribution channels (distributors and retailers) and has always been extremely focused on product quality.

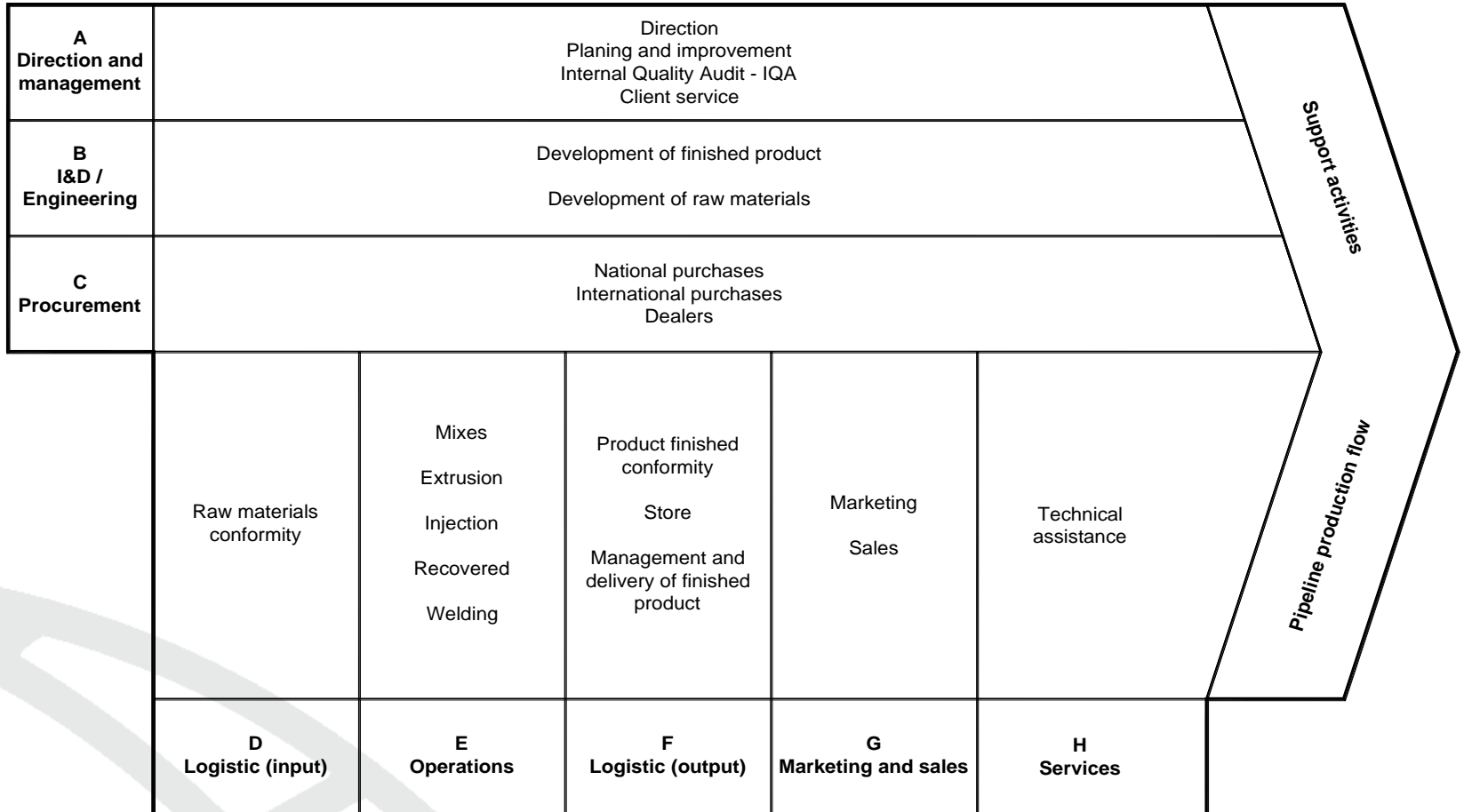
Industry value chain



Preliminary analysis of the Standards Impact

- The company has a library of approximately 200 technical standards and regulations, covering products, testing and quality management aspects
- Based on preliminary analysis (supported by the Standards Impact Map) the business functions most significantly impacted by standards are:
 - Marketing and sales
 - Production
- Interesting information (mostly semi-quantitative and qualitative) has also been collected in relation to:
 - Procurement
 - Engineering

The Company Value Chain



Marketing & Sales (1)

- The primary business is PVC pipes and accessory products - which represent over 75% of the company revenue
- Building construction and Infrastructure (aqueducts, sewage systems, electric pipes, etc.) are the most important market segments covered by the company – representing some 65% of sales
- Conformity to standards and certification against major standards and regulations is considered critical because it:
 - Has been a **key element of competitive advantage** driving GERFOR's growth, when GERFOR and another company were the only two certified companies operating in the Colombian market
 - Continues to **help building customers' confidence** (although all main market players are now certified and this is no longer a competitive advantage "per se" – it must be complemented by other factors)

Marketing & Sales (2)

- Conformity to voluntary standards is considered a critical factor for an estimated **47 %** of company's sales. Here follows the calculation of the EBIT impact
- Step 1: 47% of company impacted by standards (in 2010): **33,2 million USD**
- Step 2: The estimated, annual average gross profit is 13.7% – i.e. 14,4 million USD
- Step 3: the contribution from standards would then be estimated in 47% of 14,4 million USD – **i.e. a contribution of 6,7 million USD to the company annual EBIT.**

Production

- ISO 9001:2000 has had a significant impact on the re-design of the company processes and continual improvement
- The Production business function (assisted by the quality/conformity business function) monitors strictly several KPIs. The most important concern:
 - Productivity
 - Scrap rates
 - Overweight
 - Energy consumption

Production (2)

- The most relevant operational improvement determined by the implementation of quality management concerns the reduction of overweight
- The financial gain (2010 vs. 2009) deriving from the reduction of overweight was estimated as a **contribution of 1,3 million USD to the company annual EBIT**

Standards EBIT impact of the selected business functions

Business functions	EBIT impact
Marketing and sales	6.723.269 USD
Production	1.328.650 USD
Total	8.051.919 USD

- This corresponds to **7.7%** of the company turnover (total: 105 million USD)

Semi-quantitative considerations

Engineering

- The design of GERFOR products is almost always based on existing technical standards – it is very difficult to start a project without reference standards.
- An example was given for a new product (“piping for irrigation” product line) developed in 2009 – based on custom specifications
- The project was quite complex and required several adjustments to resolve problems associated with diameter, seals, color and other aspects. It was estimated that completing the project required approx. **10 times the time** needed for products based on standard specifications.

Procurement

- The **time spent** for the procurement of consumables (not based on technical standards) represents about **60% of the total** – against about 40% for Raw materials (all based on standards specifications) – even if **consumables represent only 5%** of the total cost of goods.

This because much more work is required to:

- writing product specifications
- interacting with suppliers (to clarify requirements)
- testing products

Thank you for your attention!



<http://www.iso.org>