

Innovation in the woodworking industry: skills needs of workers in the sector

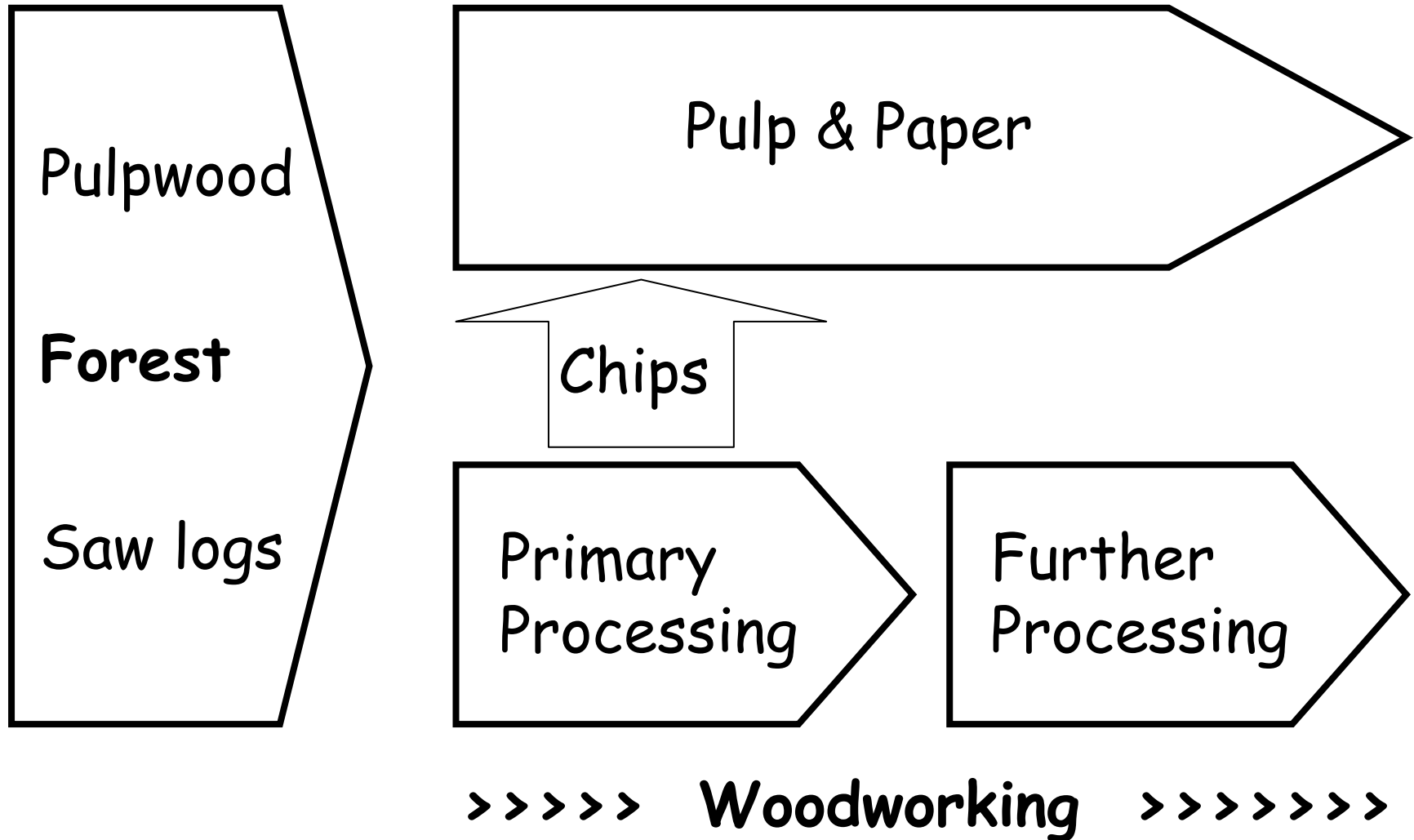
20-21 November 2006, Lisbon

Tapani Savisalo

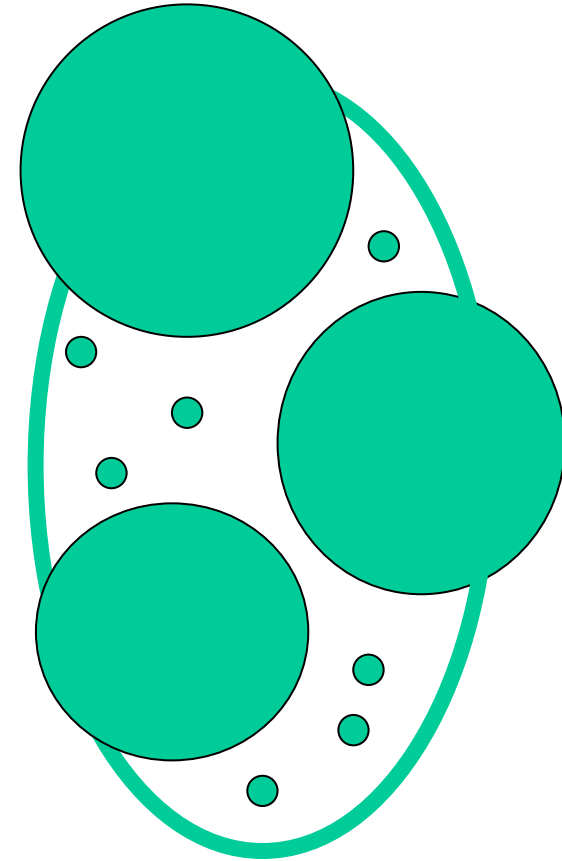
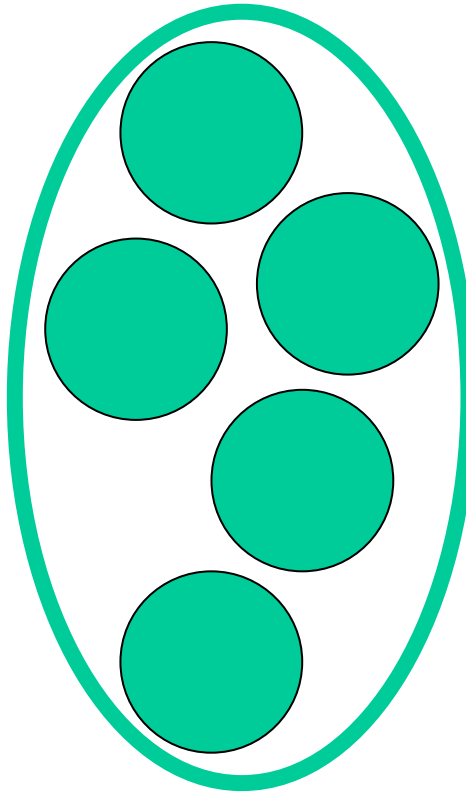
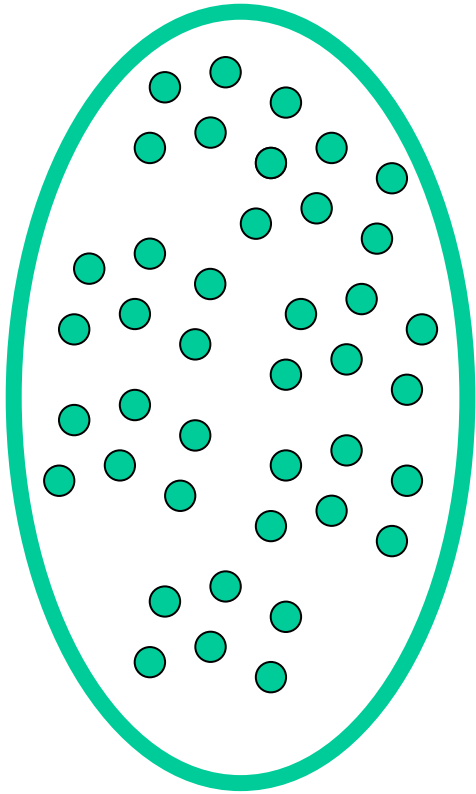
Contents

- Industry evolution
- Supply chain: from forest to customer
- Impact of the changes in
 - employment
 - outsourcing and sub-contracting
 - competence requirements in key positions
- Industry's expectations from the education system

Industry Definition



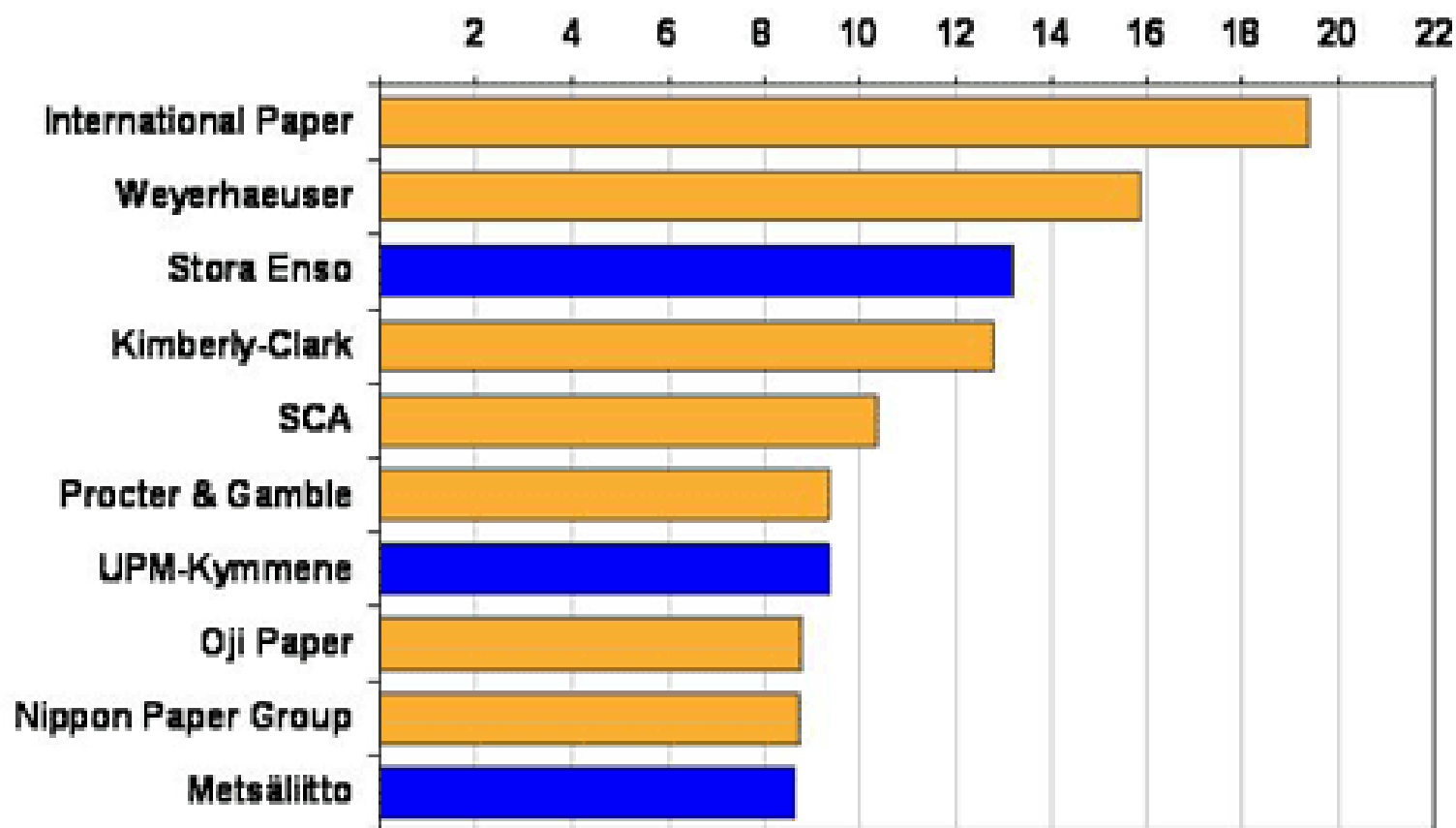
Industry Evolution



local procurement	regional procurement	cross-border procurement
local sales	international sales	segmented & local sales
low productivity	increased productivity	focus & specialization
low investment	large investment	optimized investment



Main Global Forest Industry Companies Total turnover in 2005, bill. EUR



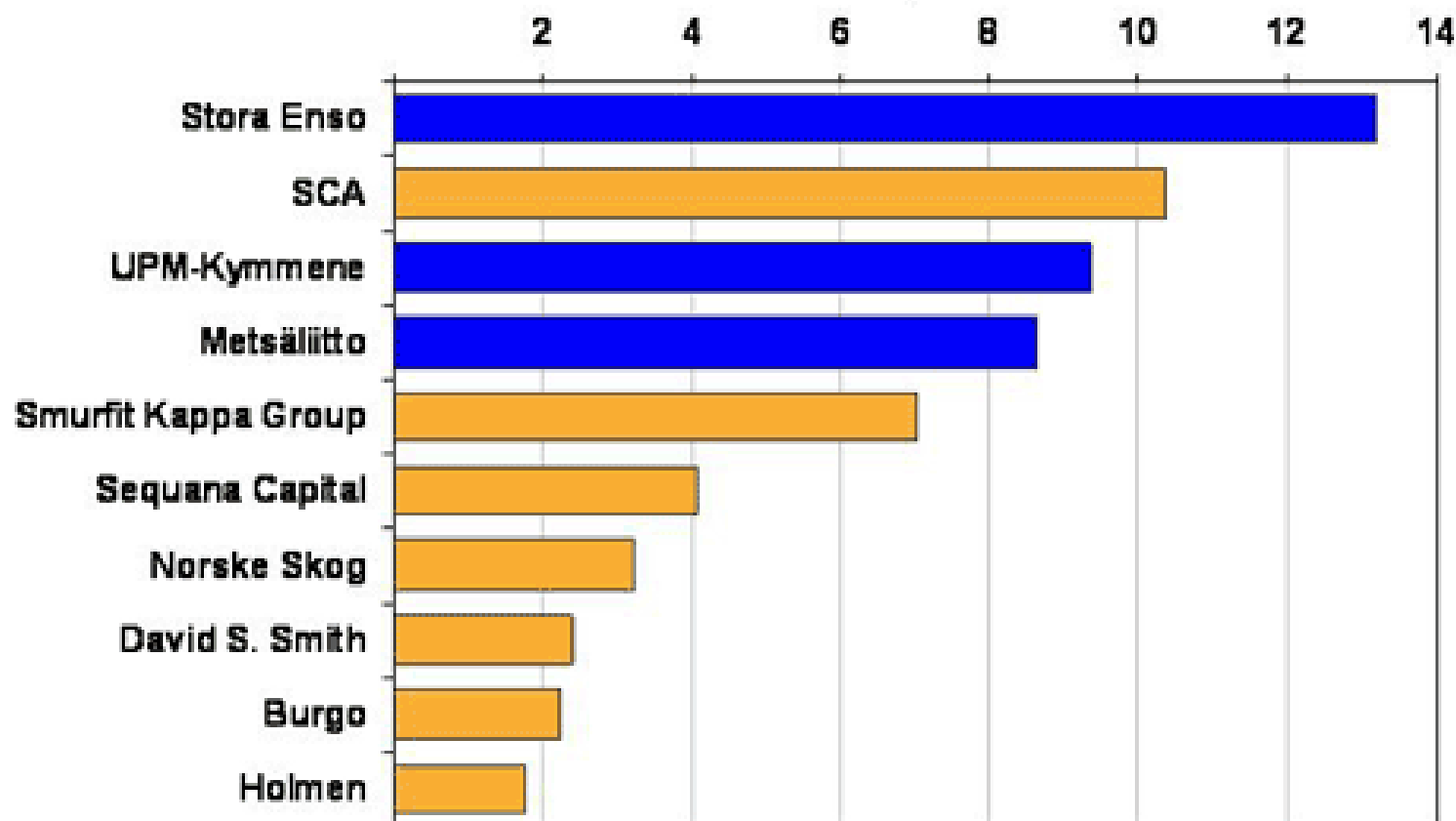
Finnish Forest Industries Federation

SOURCE
Finnish Forest Industries Federation and Jacques Pélroy



Main Forest Industry Companies in Europe

Total turnover in 2005, bill. EUR

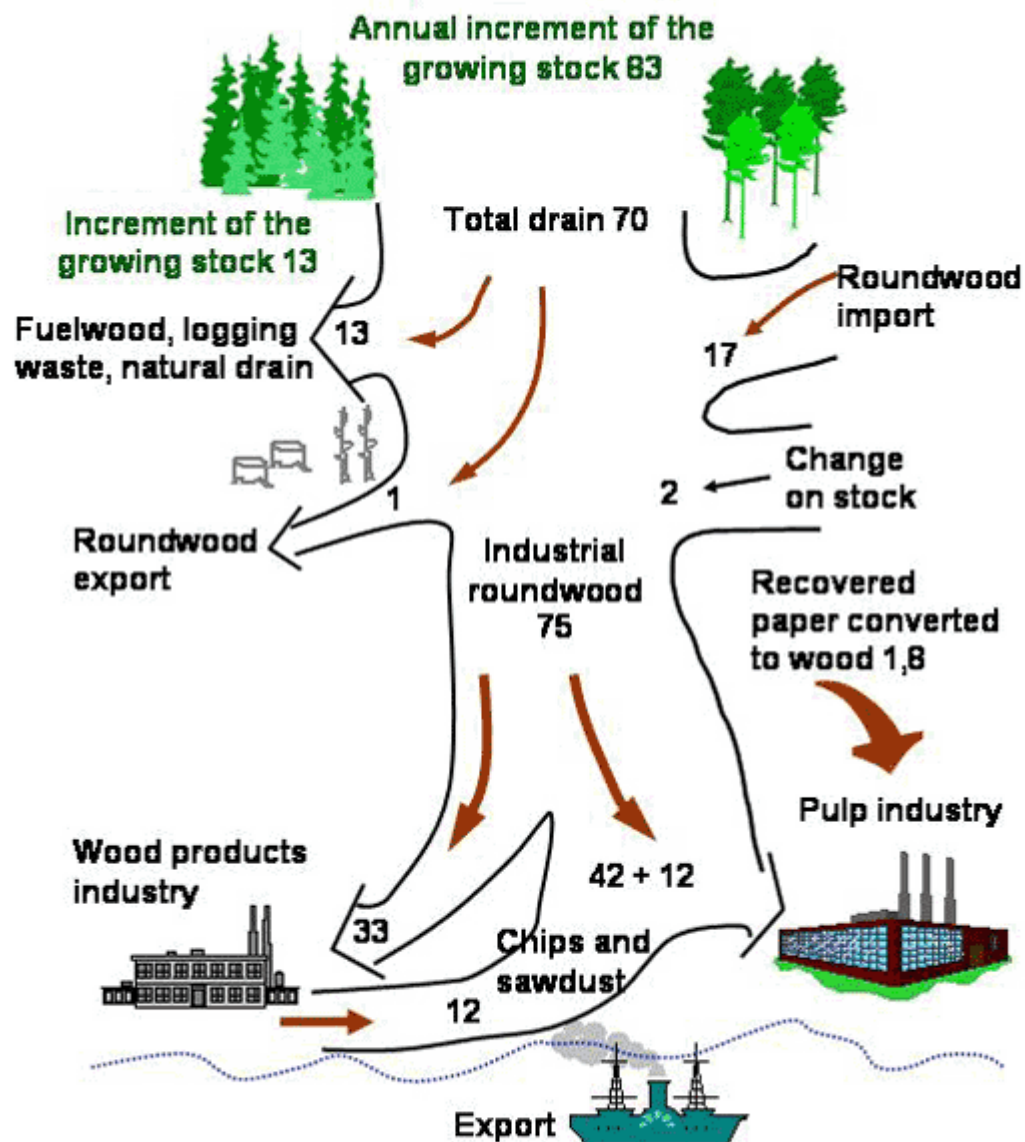


Finnish Forest Industries Federation

SOURCE:
Finnish Forest Industries Federation and Jarkko Pöyry



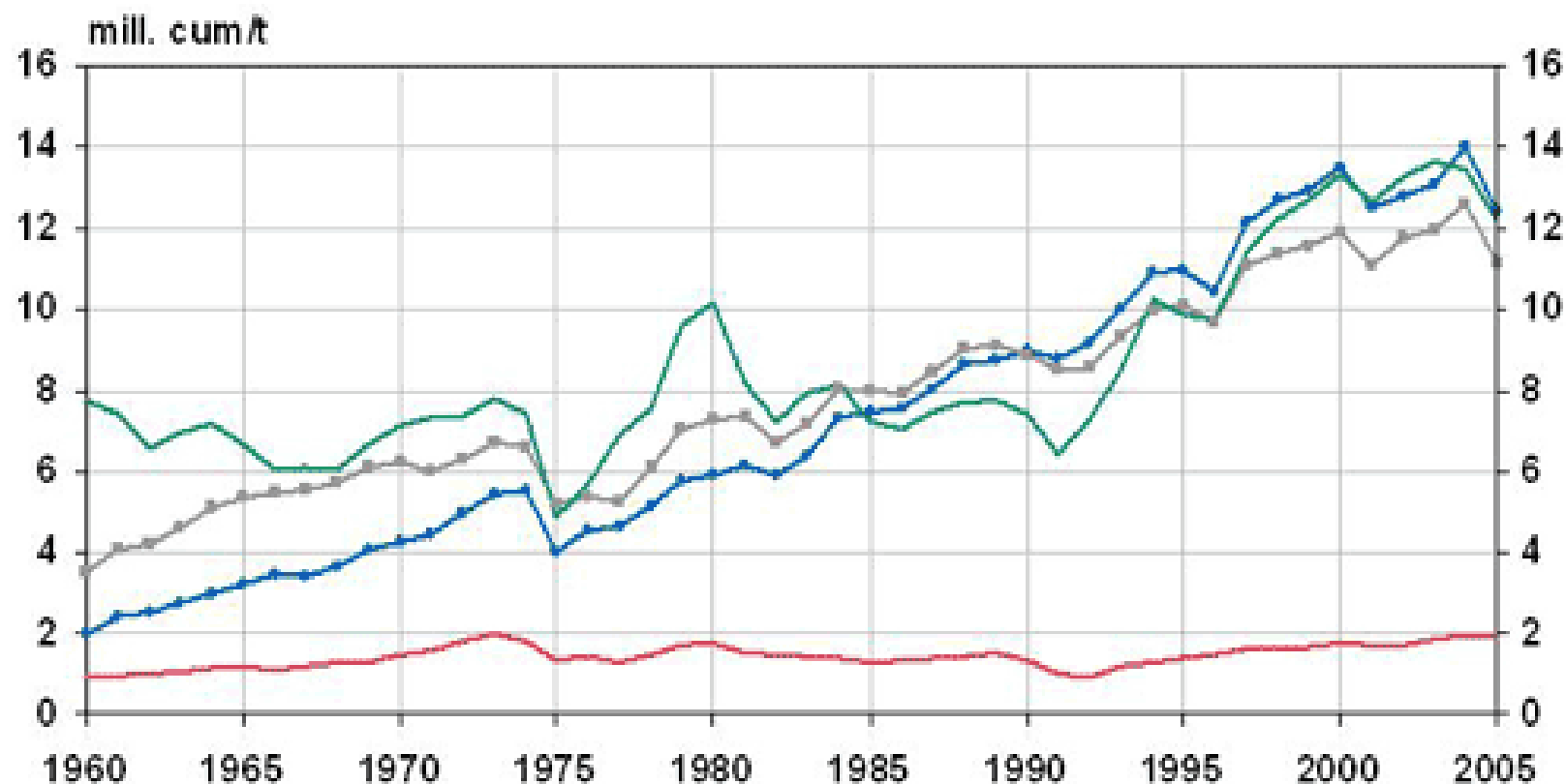
Flow of Wood in Finland 2004, mill. m³





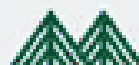
Forest Industry Production in Finland 1960-2005

— Paper and paperboard — Woodpulp — Sawn softwood — Wood-based panels



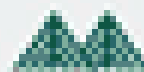
Finnish Forest Industries Federation

SOURCE: Finnish Forest Industries Federation



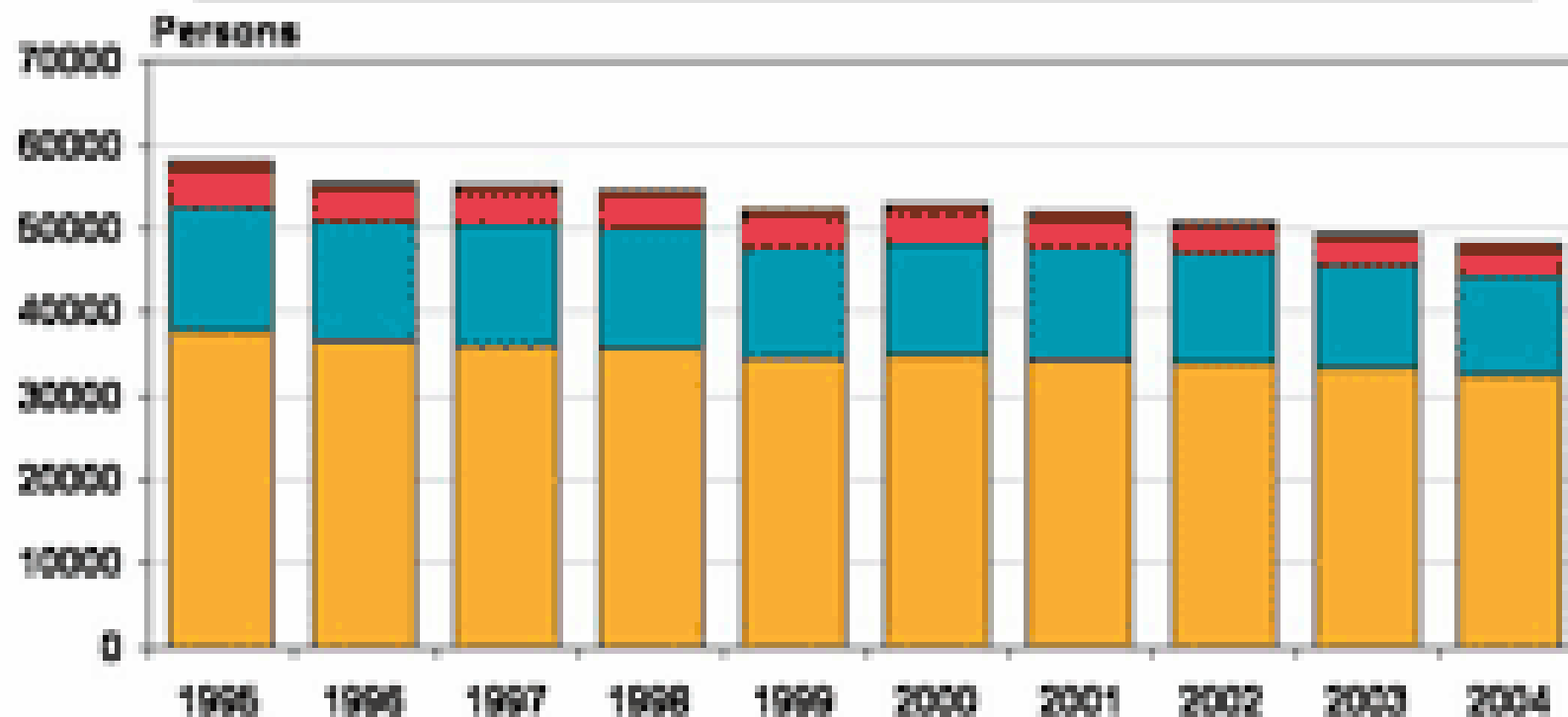
Share of Forest Industry in the Finnish Economy, %

	1980	1985	1990	1995	2000	2005
Share of employment						
Wood industry	2,4	1,8	1,5	1,5	1,4	1,2
Pulp and paper industry	2,4	2,1	1,9	1,9	1,7	1,4
Total forest industry	4,8	3,9	3,4	3,4	3,1	2,6
Share of GDP (value added)						
Wood industry	2,5	1,3	1,5	1,4	1,2	1,0
Pulp and paper industry	4,2	3,6	2,9	5,0	4,8	2,7
Total forest industry	6,7	4,9	4,4	6,4	6,0	3,7
Share of industrial production						
Wood industry	9,0	5,2	6,3	5,5	4,6	4,4
Pulp and paper industry	15,4	14,5	13,0	19,8	18,1	11,5
Total forest industry	24,4	19,7	19,3	25,3	22,7	15,9
Share of exports						
Wood industry	13,4	7,1	7,1	6,9	5,2	4,7
Pulp and paper industry	29,0	29,1	30,5	26,9	20,8	15,4
Total forest industry	42,4	36,2	37,6	33,7	26,1	20,1



Labour Force in Finnish Forest Industries Federation's Member Companies

■ Paper industry ■ Wood products industry ■ Forestry ■ Others



Outsourcing and sub-contracting opportunities

Log procurement	•harvesting of logs •log transport	
Production	•forklifts and loaders •power generation •cleaning •canteen	•handling and sorting of logs •handling of finished products •maintenance of production lines
Logistics	•transport-out of timber	
Support functions	•payroll •bookkeeping •health services	

Competence Map

Achievement orientation	General competences
Concern for quality and order	
Information seeking	
Technical expertise	
Analytical thinking	
Conceptual thinking	
Teamwork & cooperation	
Interpersonal understanding	
Self-control, stress resistance	
Flexibility	
Initiative	Entrepreneurial competences
Relationship building, networking	
Business-mindedness	
Customer-service orientation	
Impact and influence	Managerial competences
Directiveness	
Developing others	
Team leadership	
Organisational awareness	
Self-confidence	

Competence Map

	Forest worker	Harvesting operator
Achievement orientation	+	+++
Concern for quality and order	+	+++
Information seeking	+	+++
Technical expertise	+	+++
Analytical thinking		+
Conceptual thinking		++
Teamwork & cooperation	++	++
Interpersonal understanding	+	+
Self-control, stress resistance	+	++
Flexibility	+++	++
Initiative	+	++
Relationship building, networking	+	++
Business-mindedness		+++
Customer-service orientation		+++

Competence Map

	Paper machine worker	Paper machine operator
Achievement orientation	++	++
Concern for quality and order	+++	+++
Information seeking	+	++
Technical expertise	+	+++
Analytical thinking	+	+++
Conceptual thinking	+	++
Teamwork & cooperation	++	++
Interpersonal understanding	+	+
Self-control, stress resistance	++	++
Flexibility	+++	++
Initiative	+	++
Relationship building, networking	+	++
Business-mindedness		++
Customer-service orientation		++

Competence Map

	Sawmill worker	Sawmill operator
Achievement orientation	+	++
Concern for quality and order		+++
Information seeking		++
Technical expertise		+++
Analytical thinking		++
Conceptual thinking		++
Teamwork & cooperation	++	++
Interpersonal understanding	+	+
Self-control, stress resistance	++	++
Flexibility	+++	++
Initiative	+	++
Relationship building, networking		++
Business-mindedness		++
Customer-service orientation		++

Industry's Expectations

- **General skills**
 - Maths, science, problem solving, analytical thinking
 - Interpersonal understanding, communication and languages
- **Industry-specific skills**
 - Technical competence in
 - Process knowledge
 - Product knowledge
 - Maintenance
 - Organisational competence in
 - Team work
 - Networking
 - Managerial potential to be developed
 - Conceptual thinking
 - Team leadership
- **Entrepreneurial skills**
 - Business mindedness
 - Customer orientation