



In EURO	Today	30% discount	20% increase cutting speed
Variable Costs			
Cutting tools	.30	.21	.45
Work piece materials	1.70	1.70	1.70
Fixed Costs			
Machinery	2.70	2.70	2.16
Labour	3.10	3.10	2.48
Building & admin.	2.20	2.20	1.76
Cost Per Part	€10.00	€9.91	€8.55
Savings		1%	15%

Figure 1: Machining cost and impact of a 20% increased cutting speed with high quality tools

Source: Sandvik (2008), The New Rules of Cutting Tools -- Rule #4: Focus on the Biggest Sources of Expense, *Modern Machine Shop*

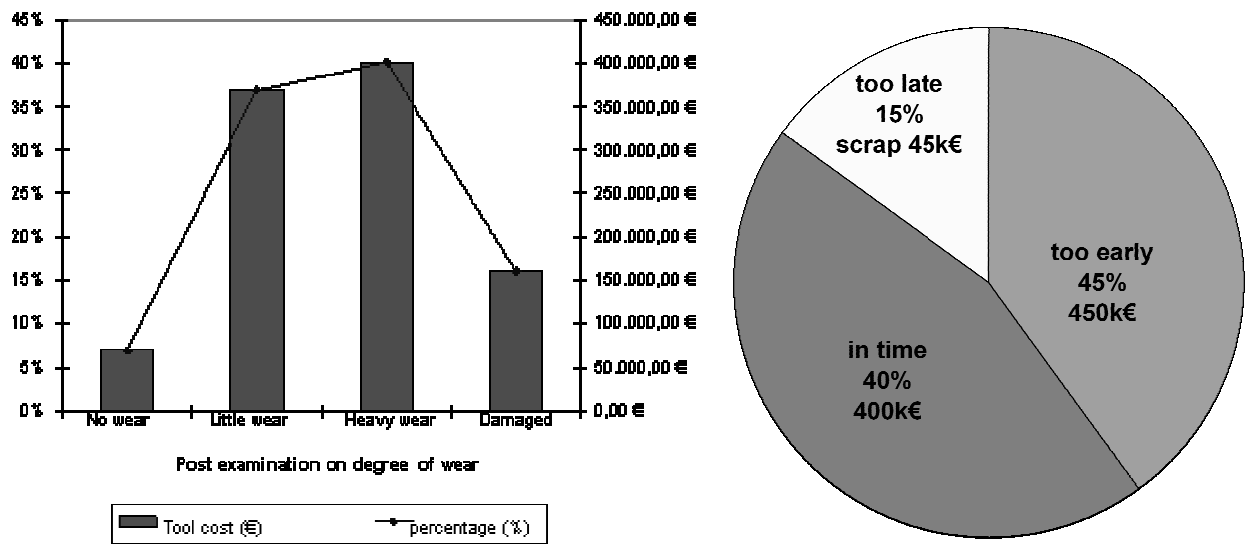


Figure 2: Graph with the condition of tools after replacement in a machining process and its economical value

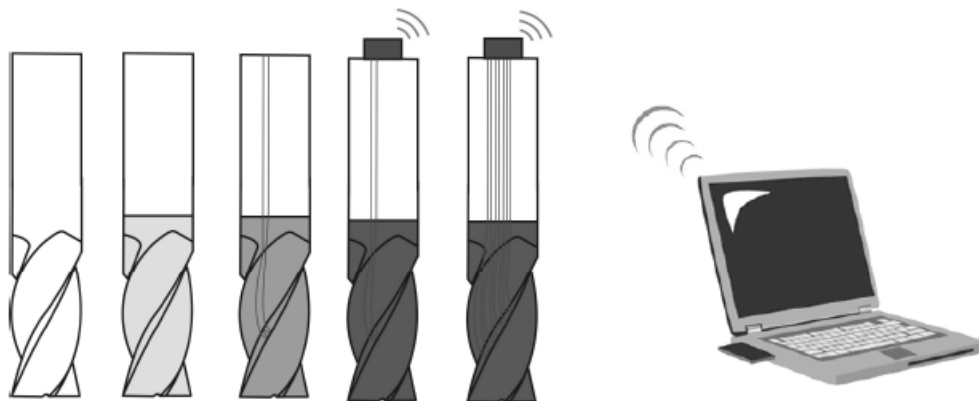


Figure 3: Concept of the sensor integrated tool and wireless transmission