



CAR & TRUCK TIRES CONTROL AREA AUTOMATION

Sept 2011



Project Targets

To eliminate 65 workers (1.2m€ save / year)

To store quality class, measurement results, weight of the tire on barcode.

Barcode based tire tracking in the market

Man-Power Distrubution

	<u>MP'09</u>	<u>TARGET</u>	
<u>PIRELLI MAN POWER</u>	<u>26</u>	<u>22</u>	
TRIMMING & VISUAL CONTROL	14	14	
SECOND CONTROL	4	4	
RGX CONTROL M/C's	4	4	
FORKLIFT DRIVER	4	0	
<u>EXTERNAL MAN POWER</u>	<u>14</u>	<u>7</u>	
CONVEYOR EXTRA HANDLING	4	0	
BUFFER AREA TYRE COLLECTING and FD90 FEEDING	3	0	
BANKEL OPERATORS	7	7	

Actions Method			
R	S	Ins	Inv
x			
			x
	x		

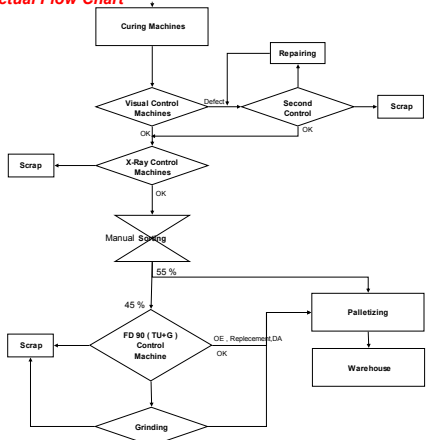
Technical Parameters

TRUCK SIZES					
Sizes	Capacity (pcs/day)	Mix	Height (mm)	Weight (kg)	Diameter (mm)
17,5"	800	33%	200	20	700
19,5"	250	10%	480	75	930
20"	100	4%	400	100	1.250
22,5"	1.250	52%	385	80	1.100
	2.400				

CAR & TRUCK TIRES CONTROL AREA AUTOMATION - TRUCK



Truck Finishing Area Actual Flow Chart



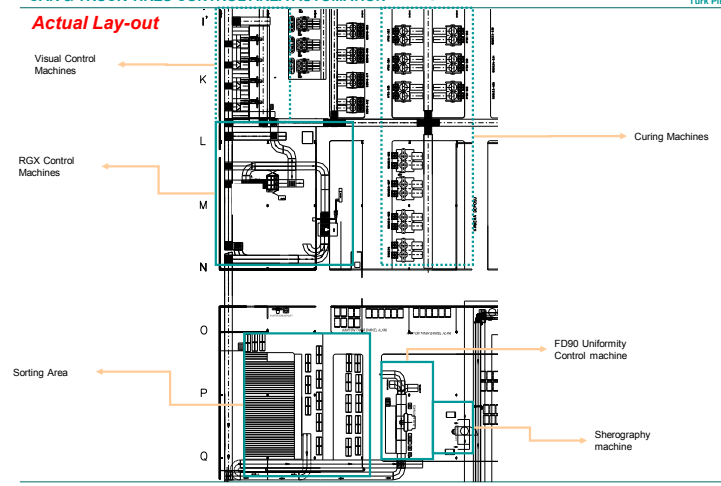
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CAR & TRUCK TIRES CONTROL AREA AUTOMATION - TRUCK



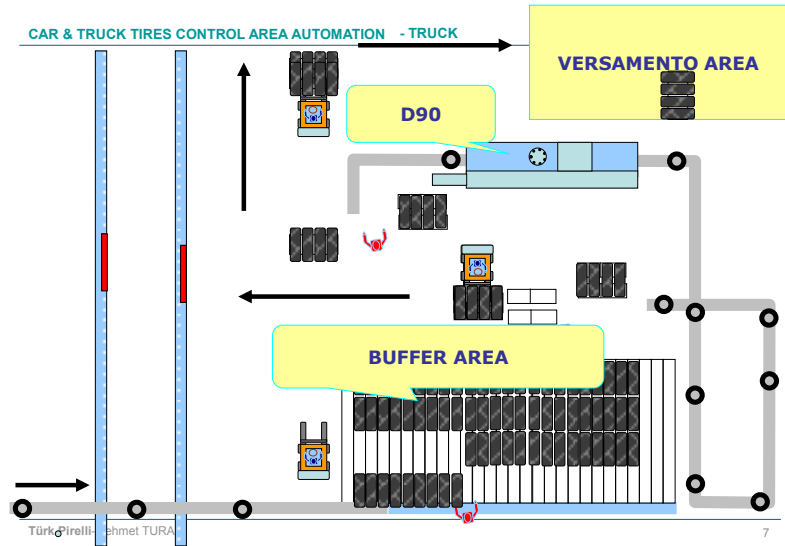
Actual Lay-out



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CAR & TRUCK TIRES CONTROL AREA AUTOMATION - TRUCK



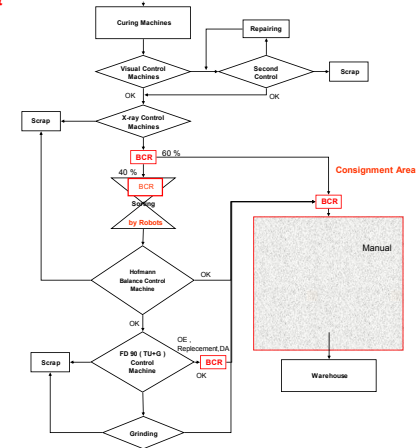
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CAR & TRUCK TIRES CONTROL AREA AUTOMATION - TRUCK



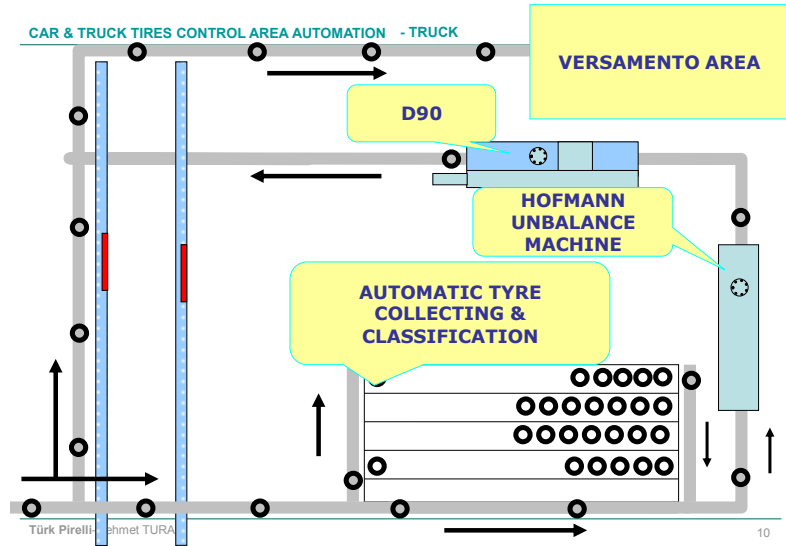
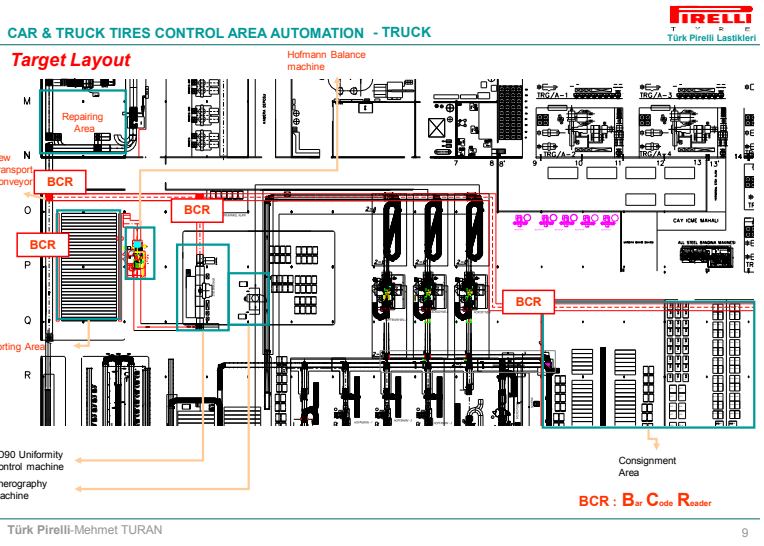
Target Flow Chart



BCR : Barcode Reader

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Investment

PROJECT	ITEMS	COST (k€)
CIVIL WORKS FOR AREA PREPERATION		50
MODIFICATION OF EXISTING CONVEYORS		50
TRANSPORT CONVEYORS TO CONSIGNMENT AREA		300
AUTOMATIC TYRE SORTING SYSTEM TO FEED THE CONTROL MACHINES (UNBALANCE&D90)		200
ELECTRICAL WORKS AND AUTOMATION		200
TOTAL INVESTMENT COST (k€)		800

CAR & TRUCK TIRES CONTROL AREA AUTOMATION - CAR

Man-Power Distrubution

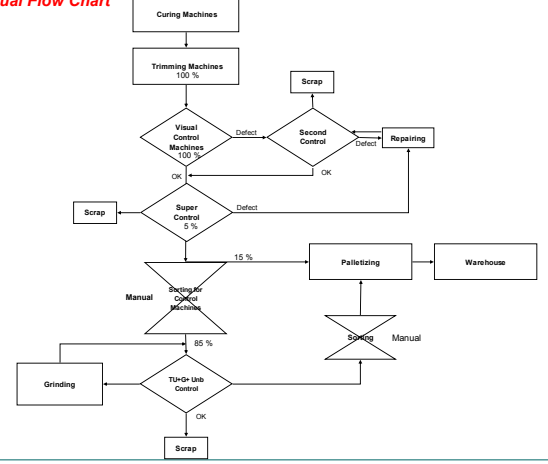
	MP'09	TARGET
PIRELLI MAN POWER MP'09	83	78
TRIMMING	33	28
VISUAL CONTROL	39	39
SECOND CONTROL	7	7
SUPER CONTROL	4	4
OE TYRE QUALITY CONTROL		
EXTERNAL MAN POWER	83	13
CONVEYOR EXTRA HANDLING	18	5
SORTING FOR CONTROL MACHINES (TU+G+Unb)	21	0
CONTROL M/C'S OPERATORS	7	2
BANKEL OPERATORS	23	15
FORKLIFT DRIVERS	6	0
OE TYRE QUALITY CONTROL	4	2
FOREMAN	4	2

Actions Method			
R	S	Ins	Inv
x			
			x
		x	
	x		
			x
		x	
			x

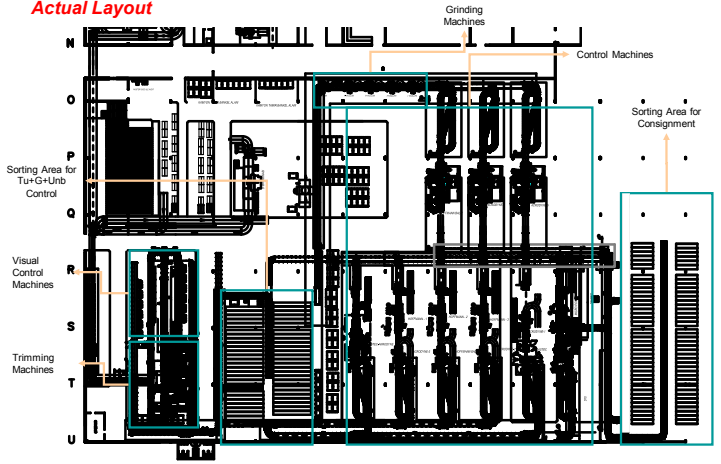
Technical Parameters

CAR SIZES					
Sizes	Capacity (pcs/day)	Mix	Height (mm)	Weight (kg)	Diameter (mm)
L/T RADIAL	6.800	31%	235	20	720
UHP	400	2%	225	12	650
HR	2.000	9%	195	10	410
HP	400	2%	225	11	440
S/T+Spare Tyre	10.200	46%	135	5	550
WINTER	2.200	10%	195	11	410
	22.000				

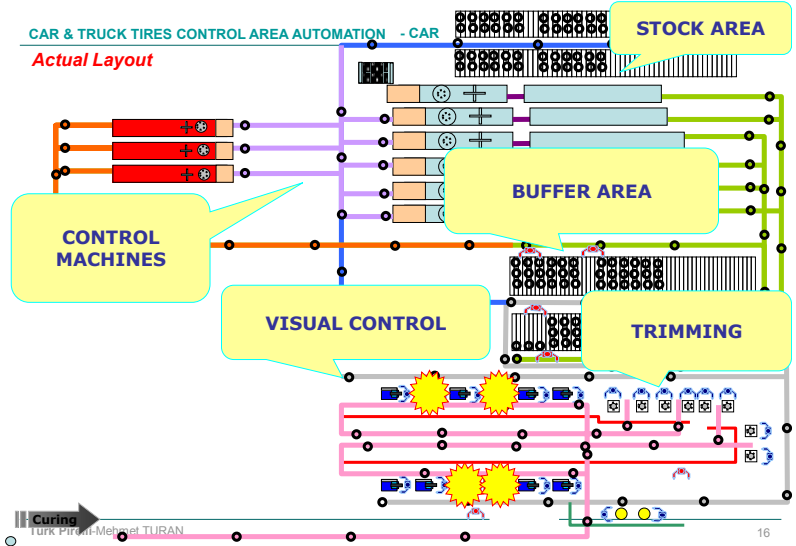
Car Finishing Area Actual Flow Chart



Actual Layout



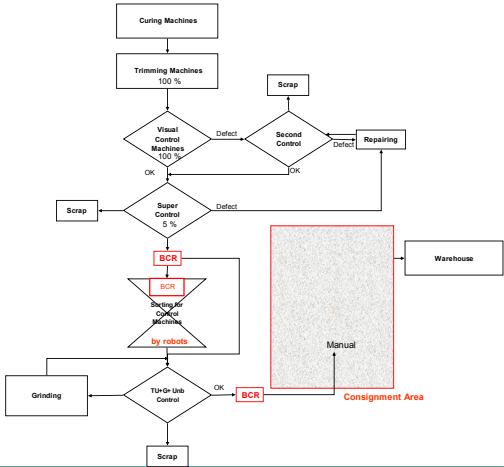
Actual Layout



CAR & TRUCK TIRES CONTROL AREA AUTOMATION - CAR



Target Flow chart



BCR : B ar C ode R eader

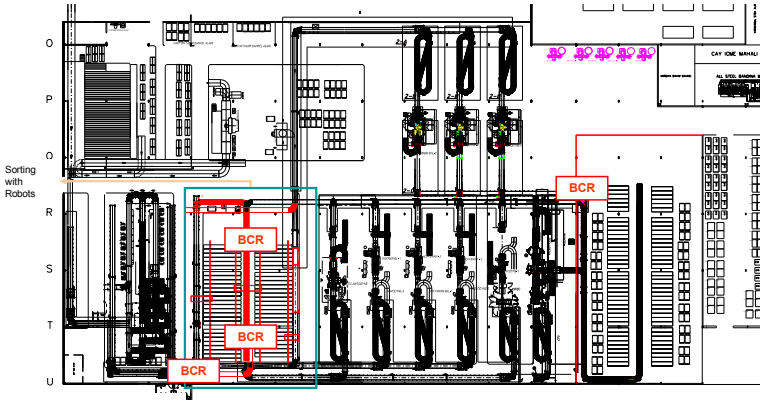
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CAR & TRUCK TIRES CONTROL AREA AUTOMATION - CAR



Target Layout



BCR : B ar C ode R eader

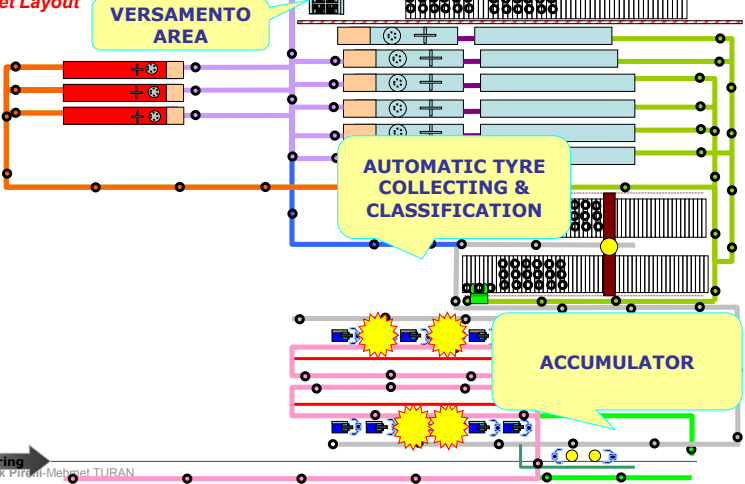
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CAR & TRUCK TIRES CONTROL AREA AUTOMATION - CAR



Target Layout



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CAR & TRUCK TIRES CONTROL AREA AUTOMATION - CAR



Investment

PROJECT	ITEMS	COST (k€)
CIVIL WORKS FOR AREA PREPERATION		50
MODIFICATION OF EXISTING CONVEYORS		100
AUTOMATIC TYRE SORTING SYSTEM TO FEED THE CONTROL MACHINES (TU + G + Unb)		350
ELECTRICAL WORKS AND AUTOMATION		200
TOTAL INVESTMENT COST (k€)		700

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