	PRIORITIES:	PERIOD:	DEADUNE:	WCET:
PING:	9	600	400	100
WGET:	8	1400	1200	300
FTP:	7	1200	800	400

FIXED PRIORITY SCHEDULING (NO PREEMPTION)

0 600 1200 1400 1800 2400 2800 3000

PING | PING, FTP | WGET | PING | PING, FTP | WGET | PING

0-600

$TAT_{PING} = 100 - 0 = 100$

$TAT_{WGET} = 400 - 0 = 400$

$TAT_{FTP} = 800 - 0 = 800$

P2

$TAT_{PING} = 900 - 600 = 300$

$TAT_{WGET} = 2000 - 1400 = 600$

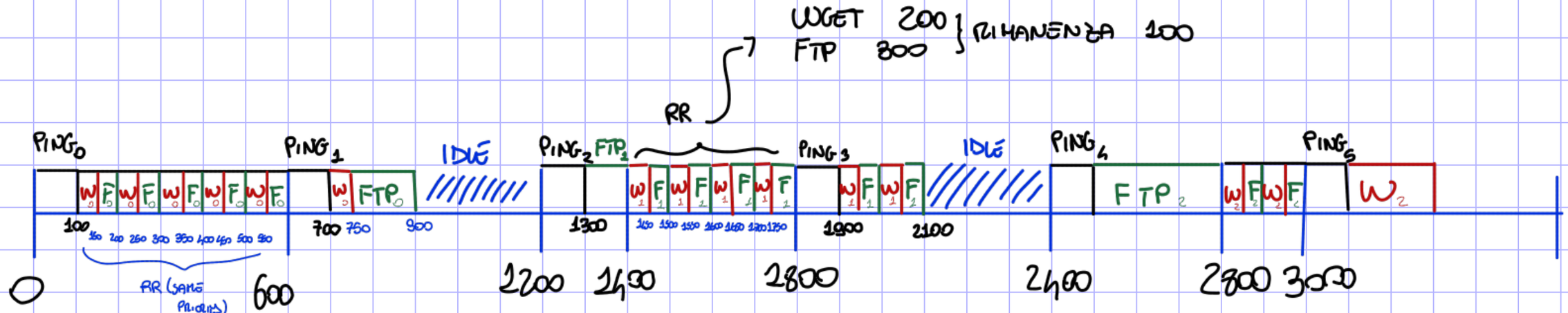
$TAT_{FTP} = 1700 - 1200 = 500$

SENZA PREEMPTION

NON SARA' FEASIBLE

FIXED PRIORITY SCHEDULING WITH ROUND ROBIN (TQ = 50)

	PRIORITES:	PERIOD:	DEADLINE:	WCET:
PING:	9	600	400	100
WGET:	8	1400	1200	300
FTP:	8	1200	800	400



5 · 50 = 250 WGET
5 · 50 = 250 FTP
} RIMANENZE: { WGET = 300 - 250 = 50; FTP = 400 - 250 = 150

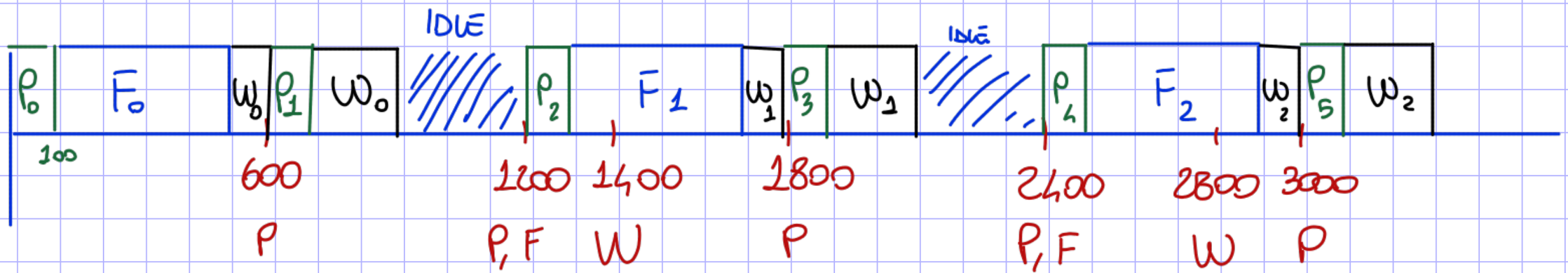
$TAT_{PING} = 100$ $WT_P = 0$
$TAT_{WGET} = 750$ $WT_W = 450$
$TAT_{FTP} = 900$ $WT_F = 500$

$TAT_{AVG} = \frac{1750}{3} = 583$ $WT_{AVG} = \frac{950}{3} = 316$

RATE MONOTONIC (TIME SWING = Ø)

	PRIORITIES:	PERIOD:	DEADLINE:	WCET:
PING:		600	400	100
WCET:		1400	1200	300
FTP:		1200	800	400

FEASABILITY = $\left(\frac{1}{6}+1\right)\cdot\left(\frac{3}{14}+1\right)\left(\frac{1}{3}+1\right) \leq 2$ $\quad 1,88 \leq 2$ OK



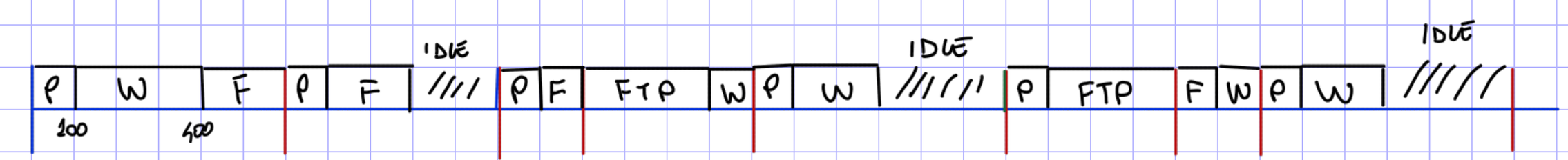
$TAT_P = 100$
$TAT_W = 800$
$TAT_F = 500$

$WT_P = 100 - 100 = Ø$
$WT_W = 900 - 300 = 600$
$WT_F = 500 - 400 = 100$

$TAT_{AVG} = \frac{1500}{3} = 500$ $\qquad \overline{WT} = \frac{700}{3} = 233$

	PRIORITIES:	PERIOD:	DEADLINE:	WCET:
PING:		600	400	100
WCET:		1400	1200	300
FTP:		1200	800	400

FIXED PRIORITY SCHEDULING (PREEMPTION)



0 - 600

P2

$TAT_{PING} = 100$

$TAT_{WCET} = 400$

$TAT_{FTP} = 900$

$TAT_{AVG} = \frac{1400}{3} =$

$WT_1 = \emptyset$

$WT_2 = 100$

$WT_3 = 600$

$WT_{AVG} = \frac{600}{3} = 200$

NON USARE (CHIAMA FILIPPO/GIANNI)

Exercise 6 – Early Deadline First

Consider the following set of hard-realtime periodic tasks :

Task	Start time	Deadline	Period	WCE
P1	0	4	6	1
P2	0	8	12	4
P3	0	12	14	3

Describe the behavior of a preemptive Earliest Deadline First (EDF) scheduler for the set of processes in the table, assuming that:
1. none of the processes should wait for the release of a resource owned by another process;
2. the operation of starting a process puts it in the ready queue, but not necessarily running.

This time period and deadline are different.
The deadline is relative to the period.

$WT_P = 0$
$WT_W = 600$
$WT_F = 100$

$WT_{AVG} = \frac{700}{3}$

$TAT_P = 100$
$TAT_W = 900$
$TAT_F = 500$

$TAT_{AVG} = 500$