

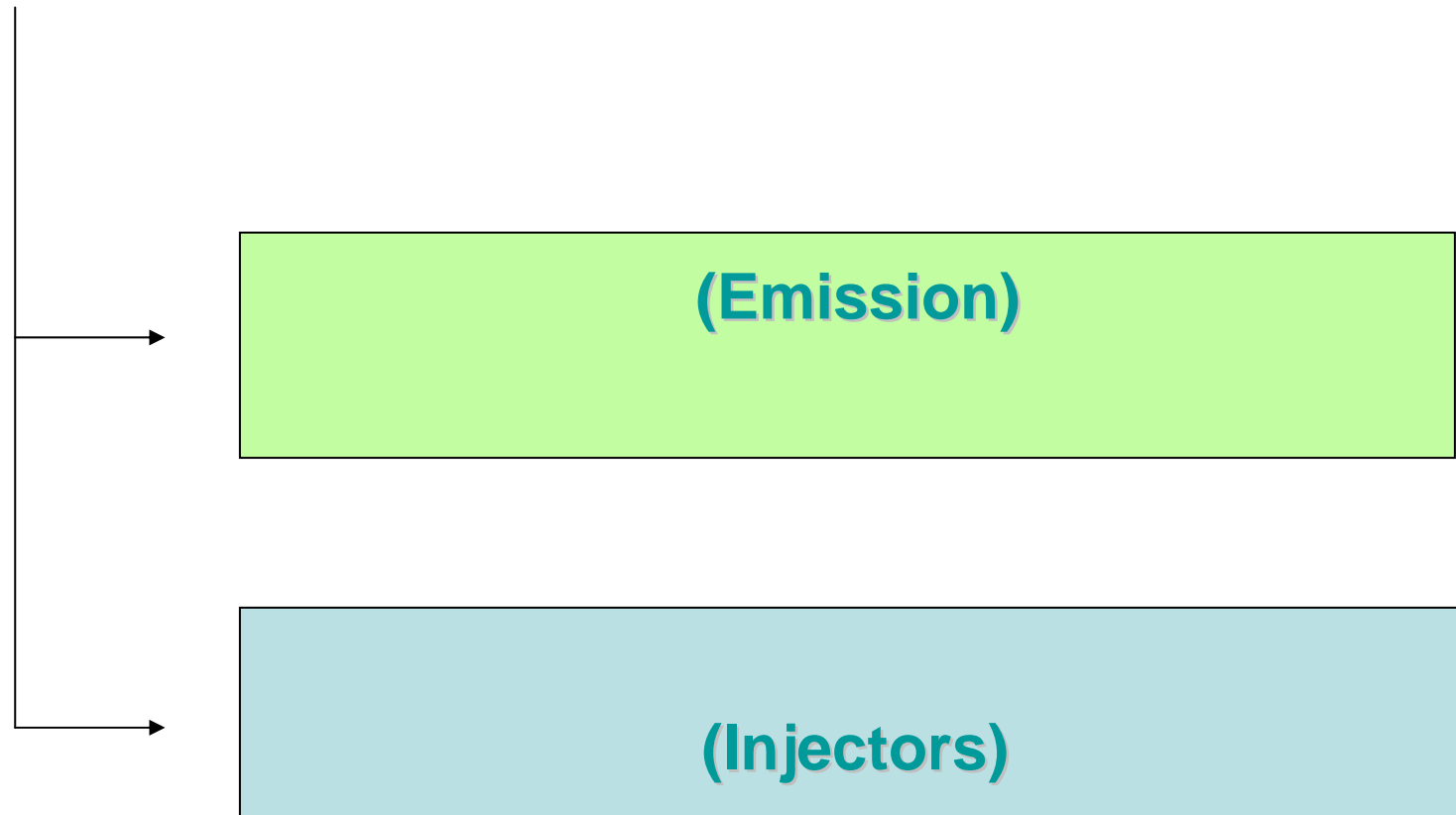
Transitory Managment

4 Type of transitory states:

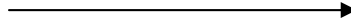
- 1) Come back to idle with CUT-OFF
- 2) Come back to idle without CUT-OFF
- 3) Fast open throttle and exiting from idle
- 4) Extra-injections

▪

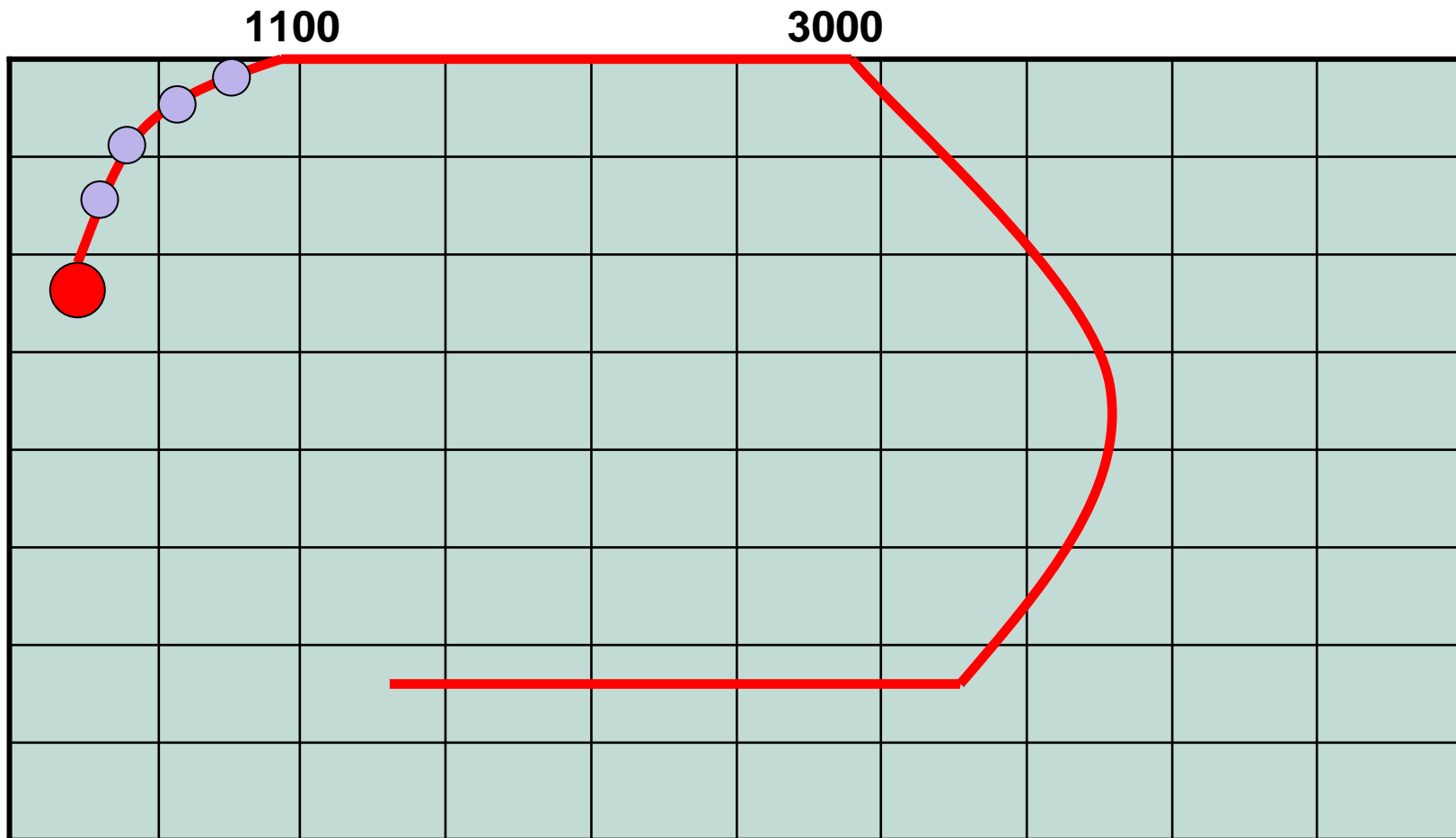
1) Come back to idle with CUT-OFF



■ Exit CUT-OFF leaning



{
< 100% lean
> 100% rich
N° injections 15-20



Vehicle configuration - Config: StandardLM#000

F1 Gas change-over

F2 Lambda

F3 Gas level

F4 Emissions

F5 Temperature

F6 K insertion

F7 Injectors

F8 - Esc Exit

Exit cutoff leaning

Leaning number injections

100 %

0

PETROL

Revs

0rpm

Tinj.gas

0.00

T.water

n.a.

Lambda

0.00V

Tinj.petrol

0.00

T.gas

n.a.

start

7_Presen...

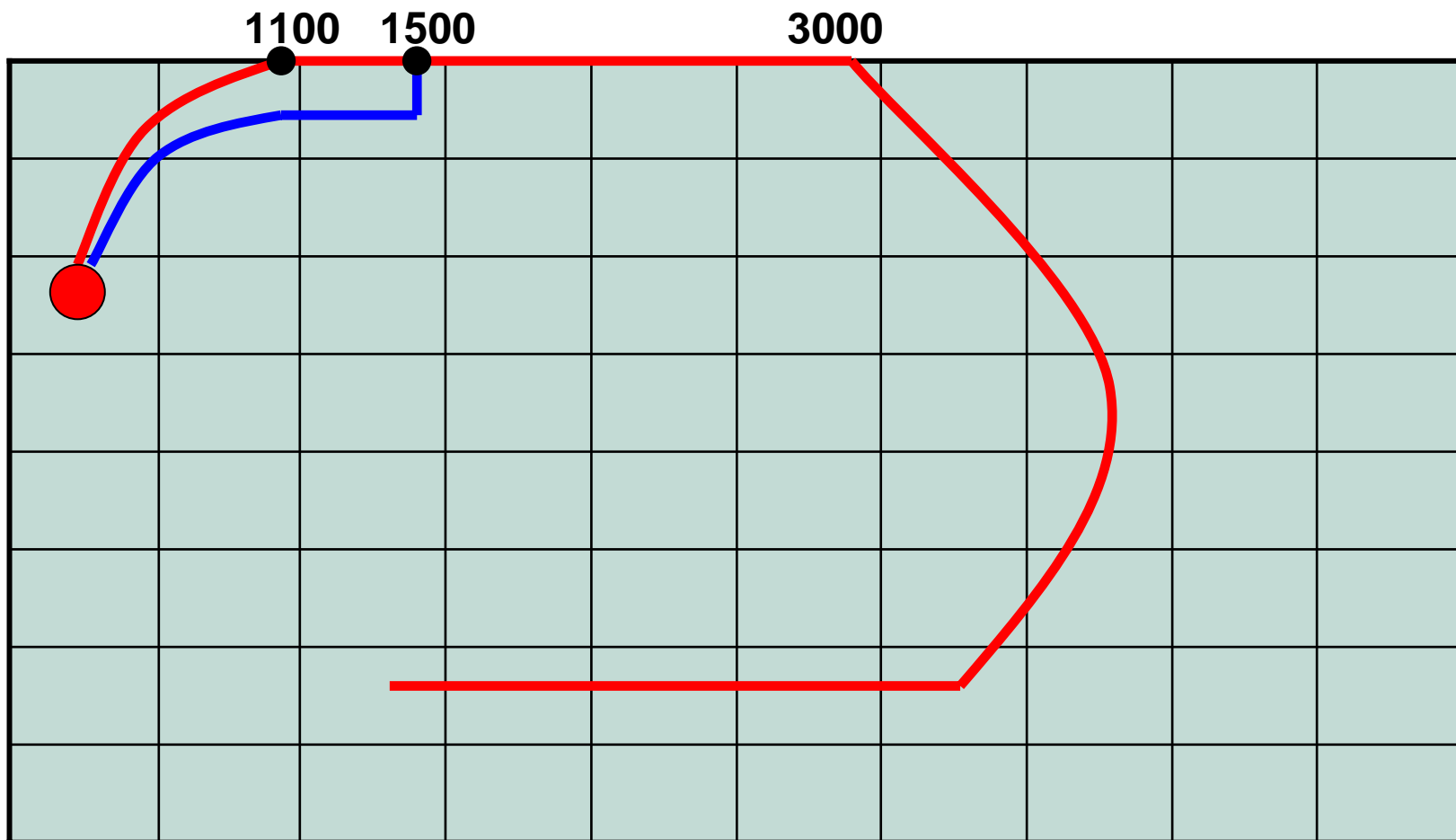
CORSO ...

Landi LSI...

IT

8.58

■ RPM for gas CUTOFF pilot system → { Es: **1500 rpm**
2,5 ms



Vehicle configuration - Config: StandardLM#000

F1 Gas change-over

F2 Lambda

F3 Gas level

F4 Emissions

F5 Temperature

F6 K insertion

F7 Injectors

F8 - Esc Exit

Max. current time (12 V)

3 ms

Holding current

1 A

Injector impedance

5 ohm

Gas injector minimum opening time

1.5 ms

Gas extra-injection minimum opening time

0.8 ms

Gas injectors timing advance

disabled

RPMs for gas cutoff pilot system

0 rpm

Activation time for gas injection cutoff

2.5 ms

PETROL	Revs	0rpm	Tinj.gas	0.00	T.water	n.a.	Lambda	0.00V
			Tinj.petrol	0.00	T.gas	n.a.		

start

7_Presen...

CORSO ...

Landi LSI...

IT

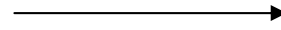
8.57

2) Comeback to idle without CUT-OFF



**Gas injectos minimum open time
(Injectors)**

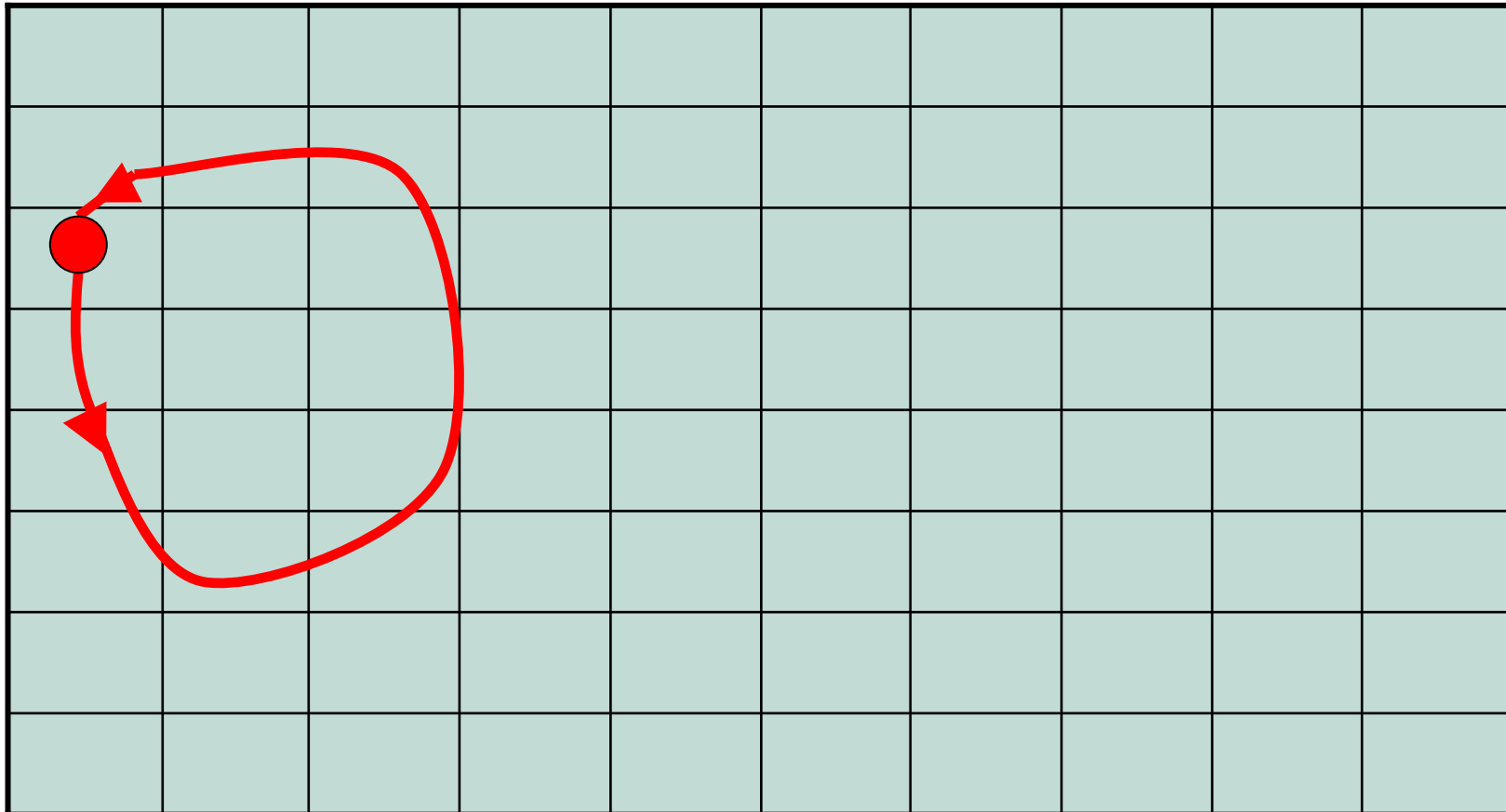
- Gas injectos minimum open time



Da **1** a **3** ms

1500

3000



Vehicle configuration - Config: StandardLM#000

F1 Gas change-over

F2 Lambda

F3 Gas level

F4 Emissions

F5 Temperature

F6 K insertion

F7 Injectors

F8 - Esc Exit

Max. current time (12 V)

3 ms

Holding current

1 A

Injector impedance

5 ohm

Gas injector minimum opening time

1.5 ms

Gas extra-injection minimum opening time

0.8 ms

Gas injectors timing advance

disabled

RPMs for gas cutoff pilot system

0 rpm

Activation time for gas injection cutoff

2.5 ms

PETROL	Revs	0rpm	Tinj.gas	0.00	T.water	n.a.	Lambda	0.00V
			Tinj.petrol	0.00	T.gas	n.a.		

start

7_Presen...

CORSO ...

Landi LSI...

IT

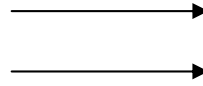
9.00

3) Fast open throttle and idle exit

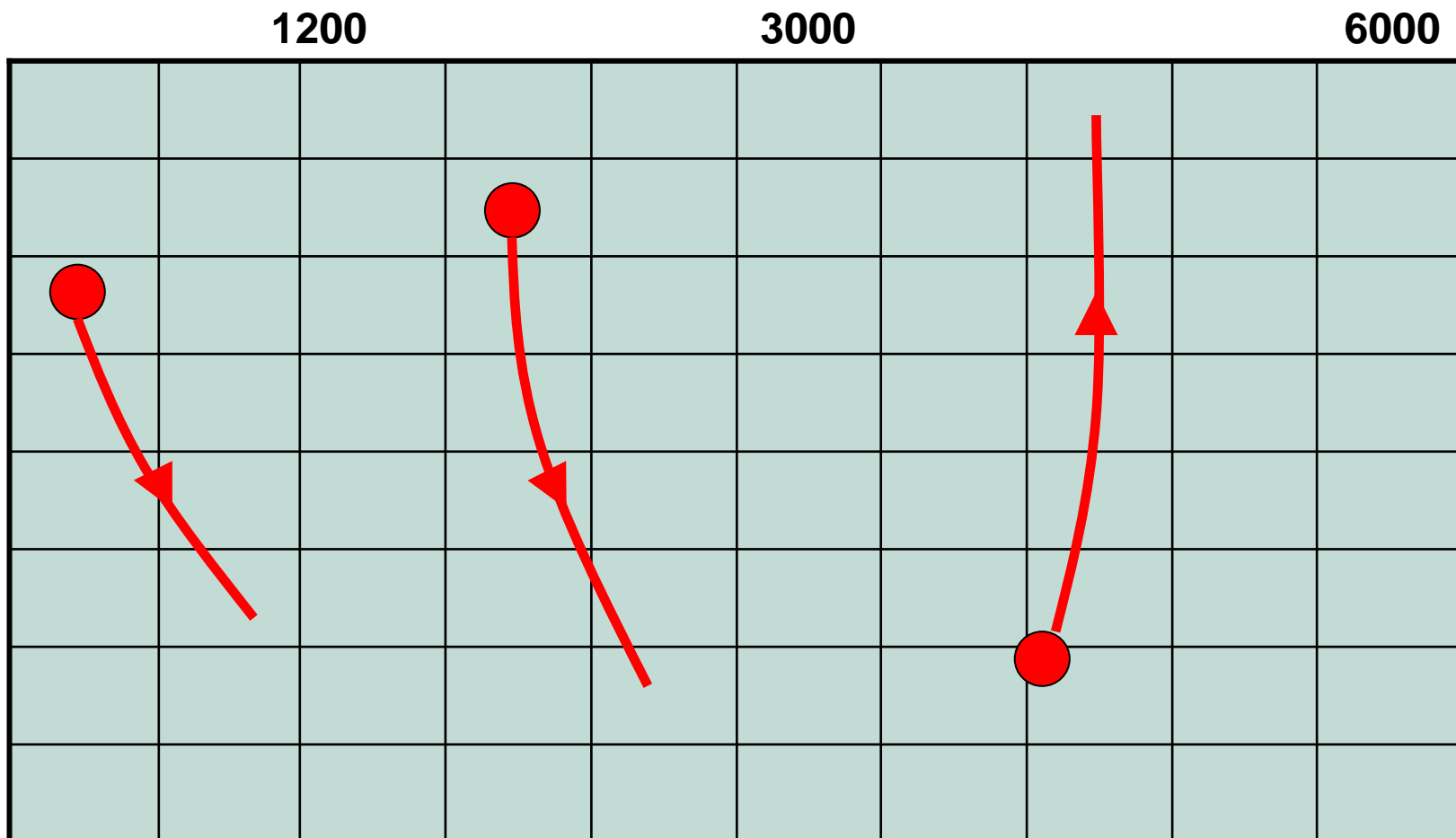


Leaning during acceleration
(K insertion)

- Leaning during acceleration
 - RPM for filtering



{ < 0% LEAN
> 0% RICH
Fino a 9000 rpm



Vehicle configuration - Config: StandardLM#000

F1 Gas change-over

F2 Lambda

F3 Gas level

F4 Emissions

F5 Temperature

F6 K insertion

F7 Injectors

F8 - Esc Exit

inj/rpm	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
2.00	122	122	122	122	122	122	124	125	126	127	128	128
2.50	128	128	128	128	128	128	130	131	132	133	134	134
3.00	132	132	132	132	132	132	134	135	136	137	138	138
3.50	138	138	138	138	138	138	140	141	142	143	144	144
4.50	138	138	138	138	138	138	140	141	142	143	144	144
6.00	136	136	136	136	136	136	138	139	140	141	142	142
8.00	128	128	128	128	128	128	130	131	132	133	134	134
10.00	120	120	120	120	120	120	122	123	124	125	126	126
12.00	116	116	116	116	116	116	118	119	120	121	122	122
14.00	116	116	116	116	116	116	118	119	120	121	122	122
16.00	114	114	114	114	114	114	116	116	118	119	120	120
18.00	114	114	114	114	114	114	116	116	118	119	120	120

30%

0%

-30%

0.0%

Modify map refs.

Start calibration

Times

Various

RPM for filtering

1200 rpm

Leaning during acceleration

0 %

PETROL

Revs

0rpm

Tinj.gas

0.00

T.water

n.a.

Lambda

0.00V

Tinj.petrol

0.00

T.gas

n.a.

start

7_Presen...

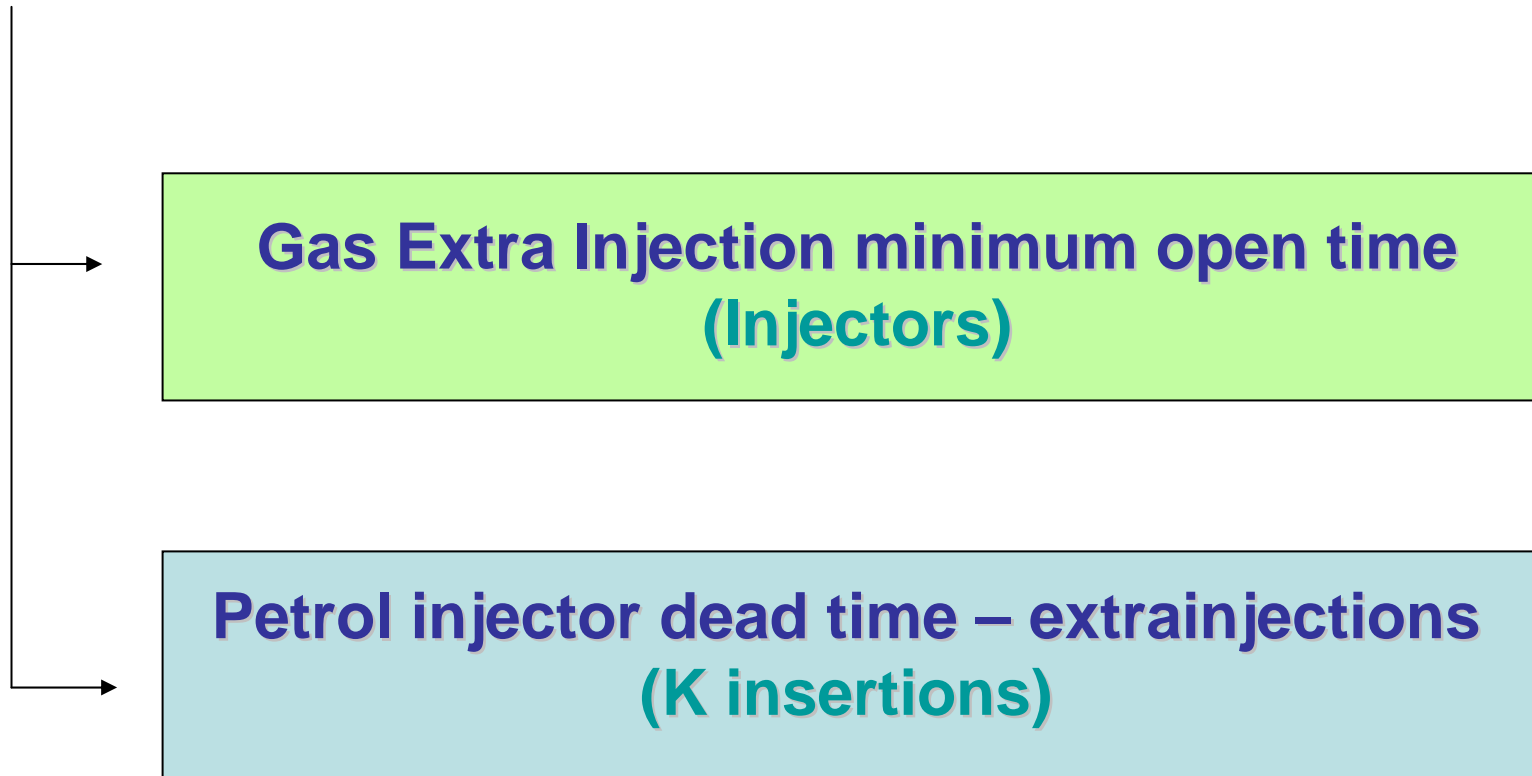
CORSO ...

Landi LSI...

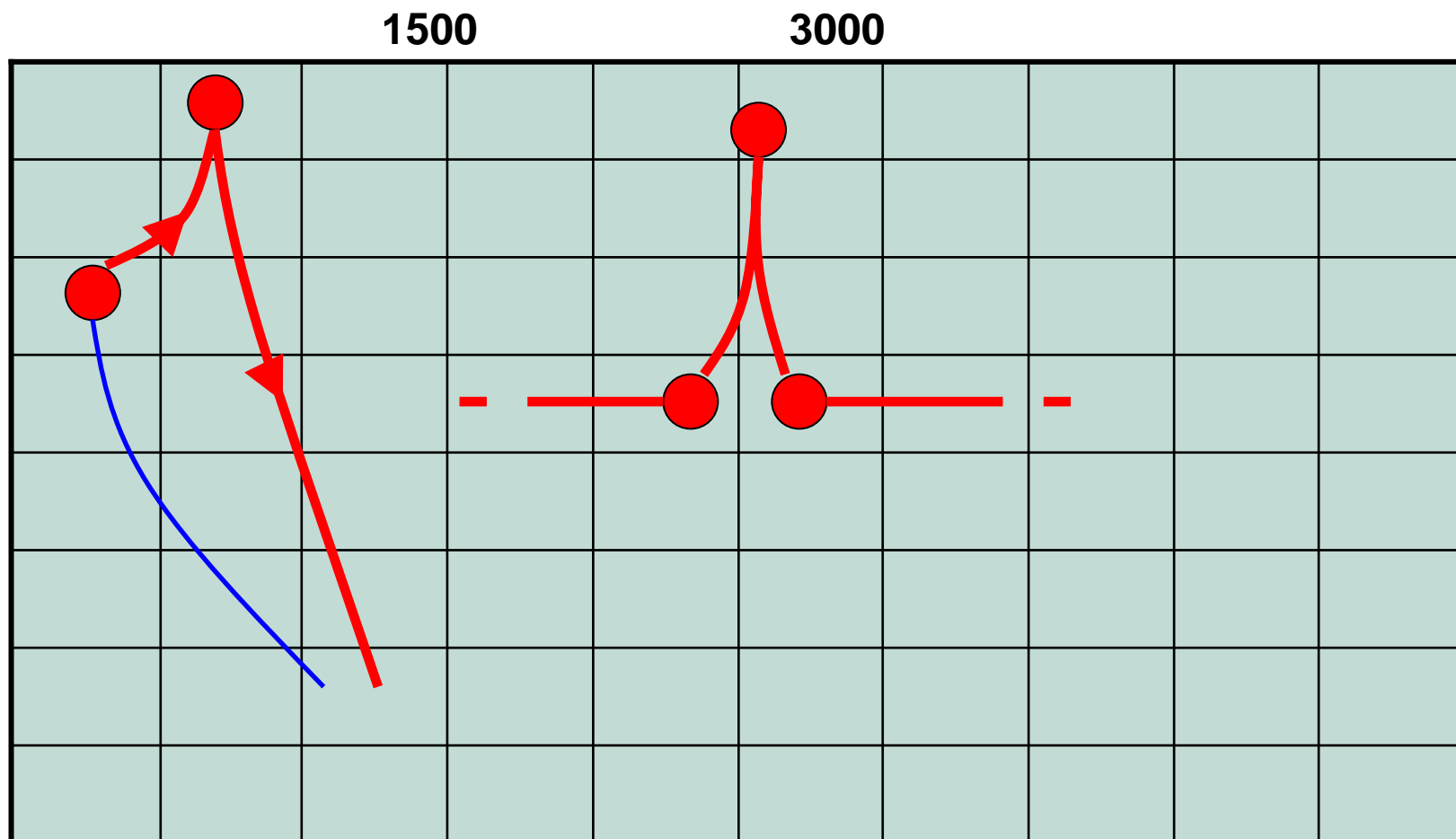
IT

9.05

4) Extra-injections (esclusivamente per il **Metano**)



- Tempo minimo apertura extrainiettate gas \longrightarrow 0 ms
- T morto iniettore benzina - extrainiettate \longrightarrow 1,4 ms



Vehicle configuration - Config: StandardLM#000

F1 Gas change-over

F2 Lambda

F3 Gas level

F4 Emissions

F5 Temperature

F6 K insertion

F7 Injectors

F8 - Esc Exit

inj/rpm	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
2.00	122	122	122	122	122	122	124	125	126	127	128	128
2.50	128	128	128	128	128	128	130	131	132	133	134	134
3.00	132	132	132	132	132	132	134	135	136	137	138	138
3.50	138	138	138	138	138	138	140	141	142	143	144	144
4.50	138	138	138	138	138	138	140	141	142	143	144	144
6.00	136	136	136	136	136	136	138	139	140	141	142	142
8.00	128	128	128	128	128	128	130	131	132	133	134	134
10.00	120	120	120	120	120	120	122	123	124	125	126	126
12.00	116	116	116	116	116	116	118	119	120	121	122	122
14.00	116	116	116	116	116	116	118	119	120	121	122	122
16.00	114	114	114	114	114	114	116	116	118	119	120	120
18.00	114	114	114	114	114	114	116	116	118	119	120	120

30%

0%

-30%

0.0%

Modify map refs.

Start calibration

Times

Various

extra-injection

Petrol injector dead time

0.3 ms

0 ms

Gas injector dead time

1.1 ms

0 ms

PETROL

Revs

0rpm

Tinj.gas

0.00

T.water

n.a.

Lambda

0.00V

Tinj.petrol

0.00

T.gas

n.a.

start

7_Presen...

CORSO ...

Landi LSI...

IT

9.07

GOOD WORK !