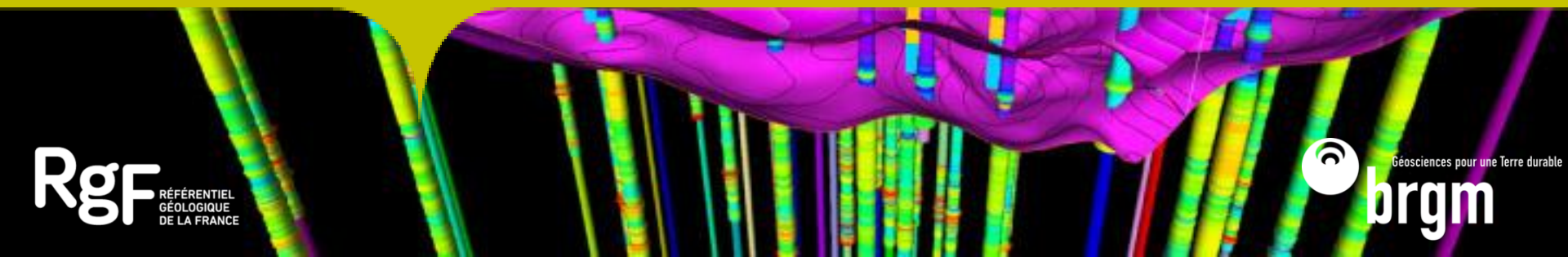
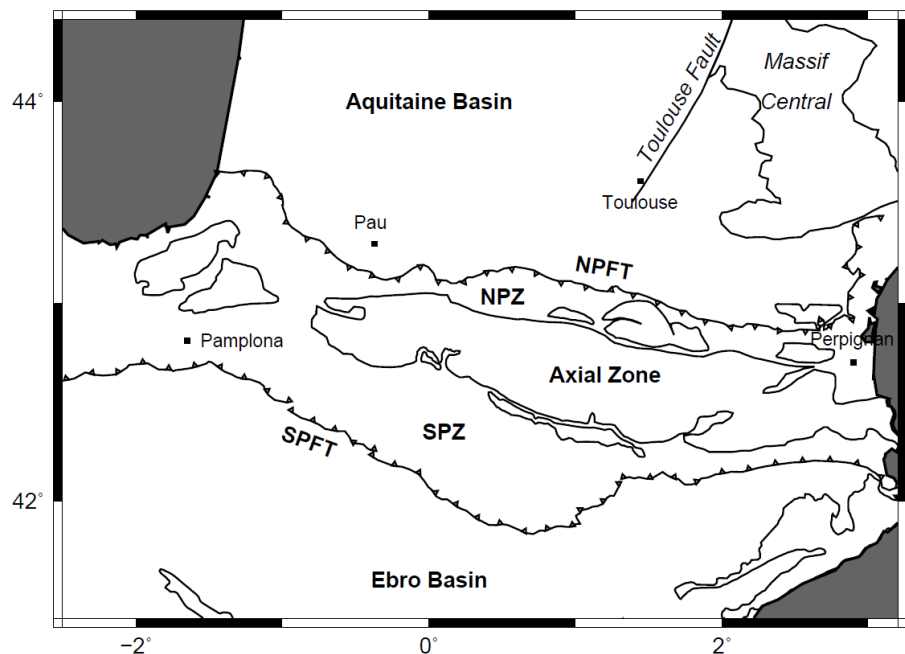




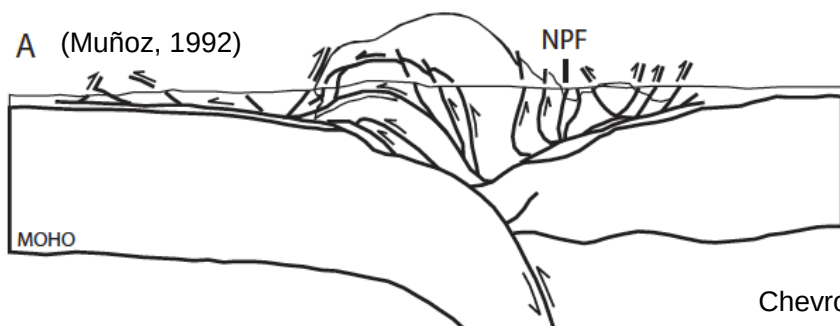
Modélisation de l'Architecture 3D des Pyrénées à partir des Données Géologiques et Géophysiques

H. Spangenberg, S. Chevrot, G. Courrioux, A. Guillen

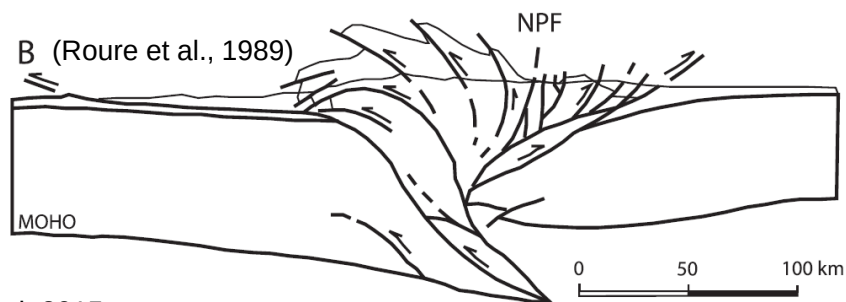




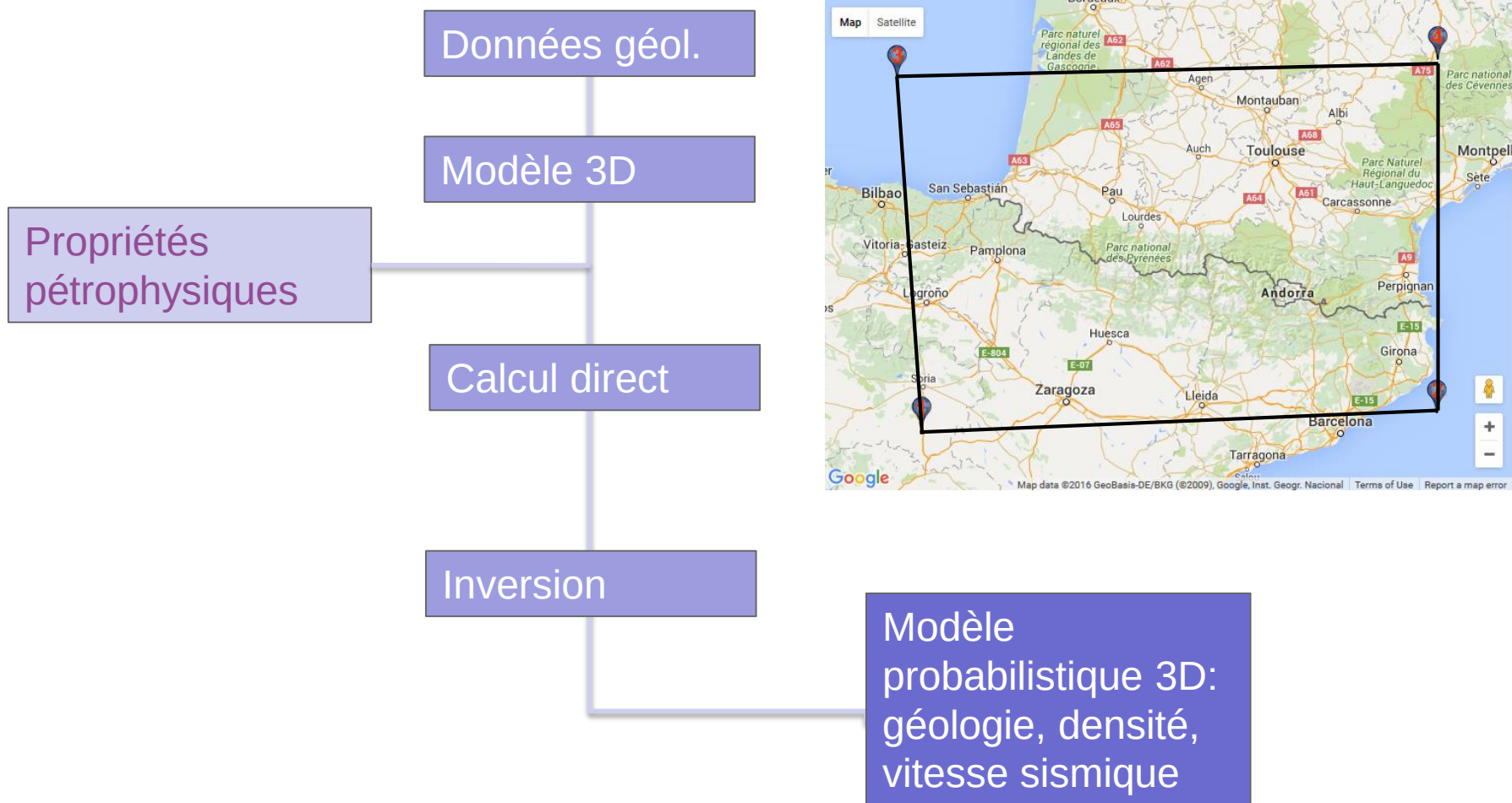
A (Muñoz, 1992)



B (Roure et al., 1989)

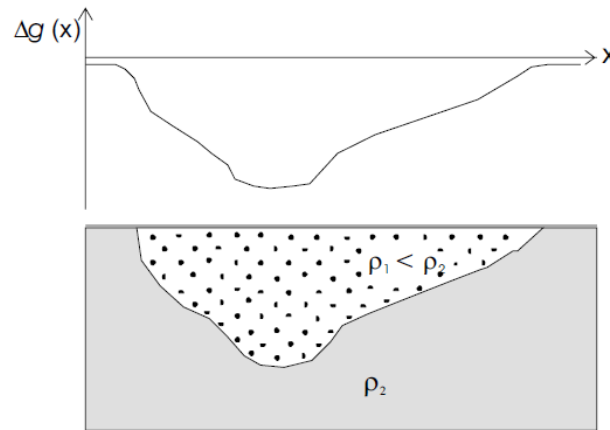


Chevrot et al. 2015



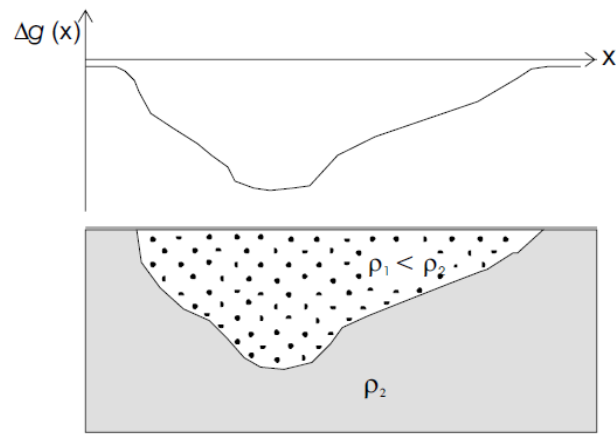
Géophysique

Gravimétrie:

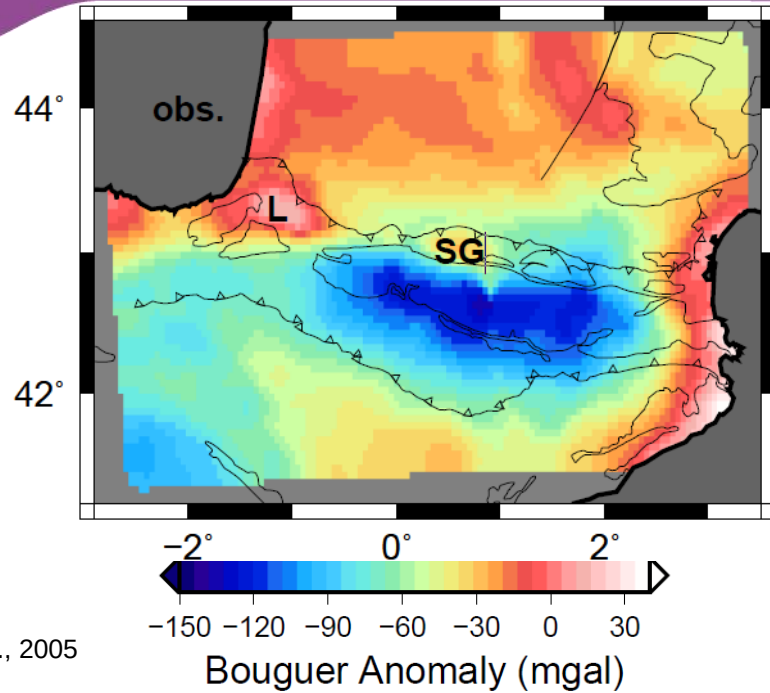


Knödel et al., 2005

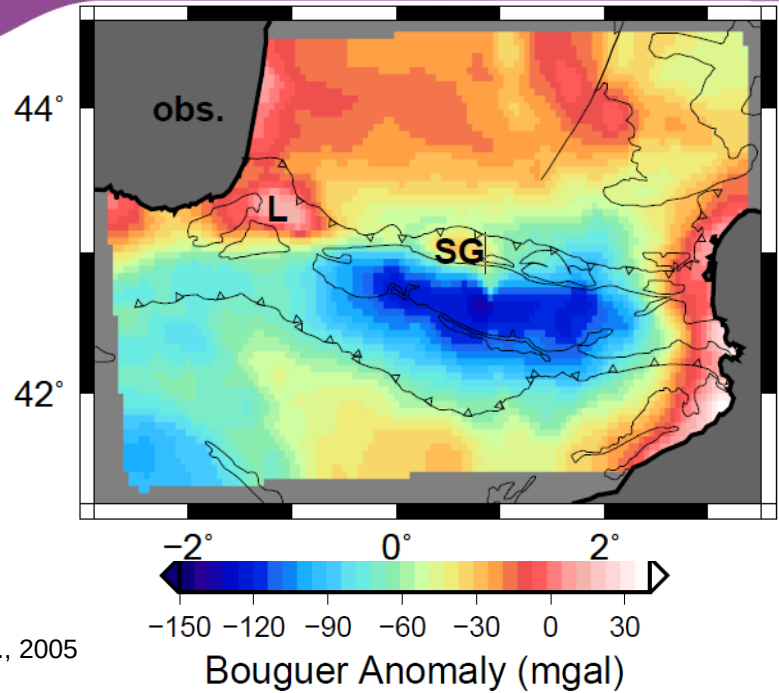
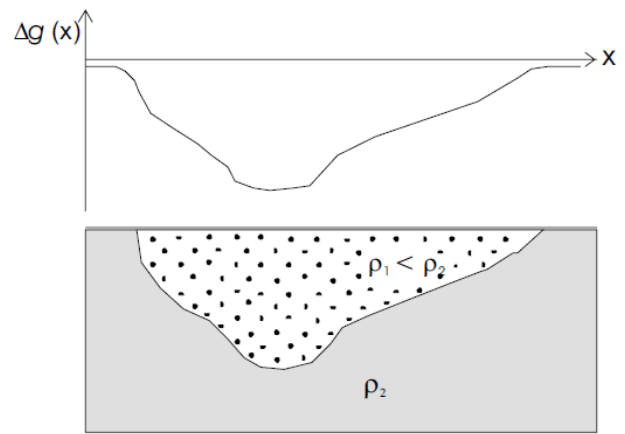
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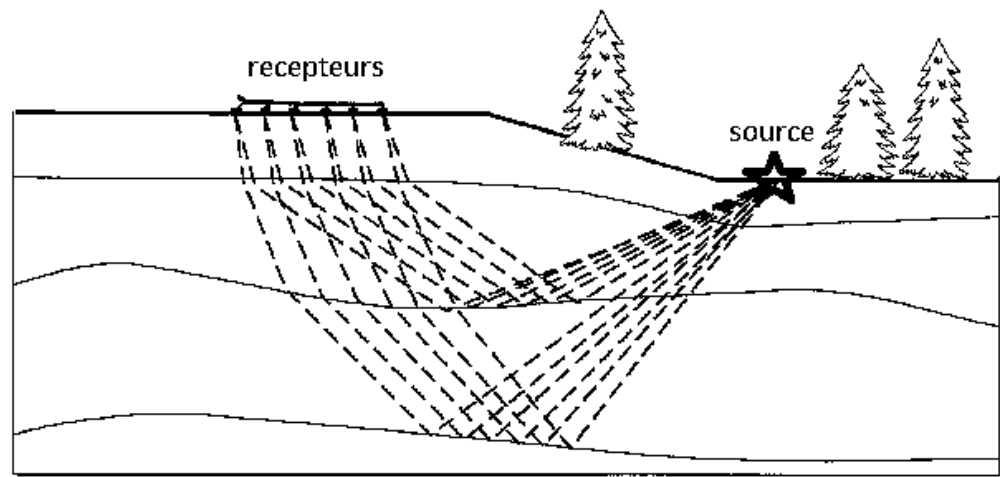
Knödel et al., 2005



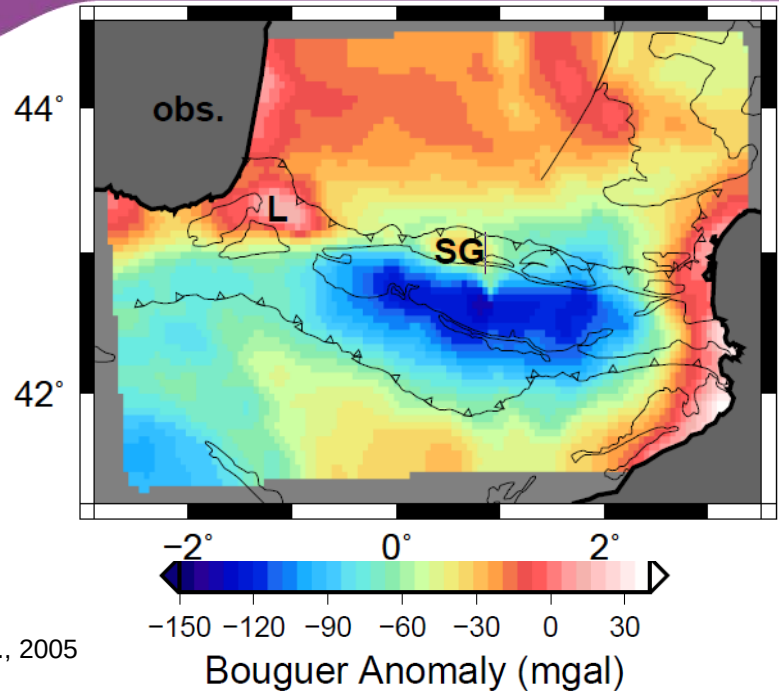
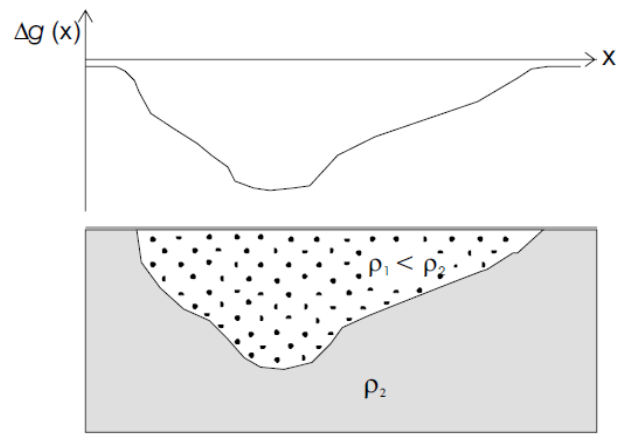
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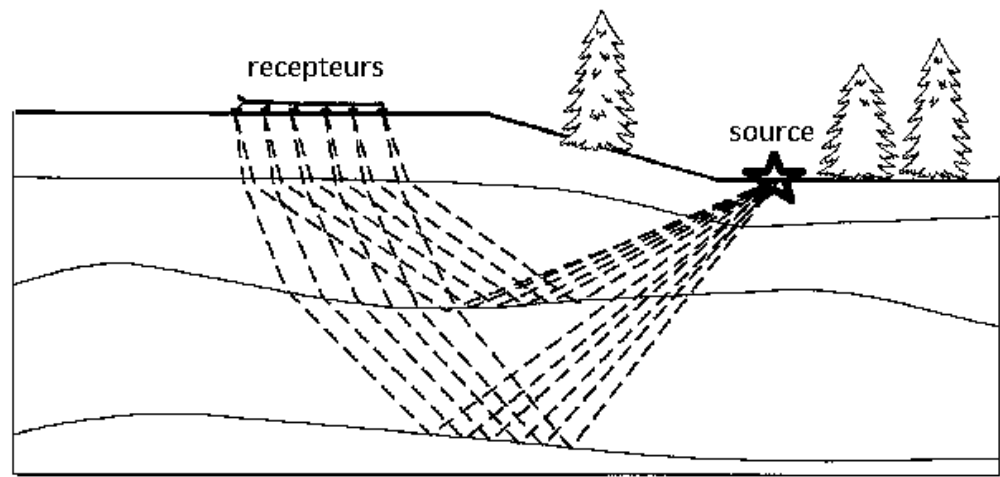
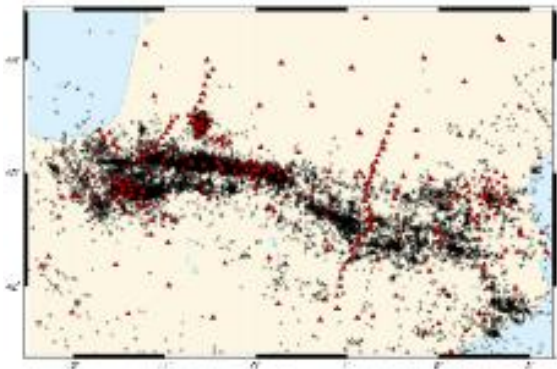
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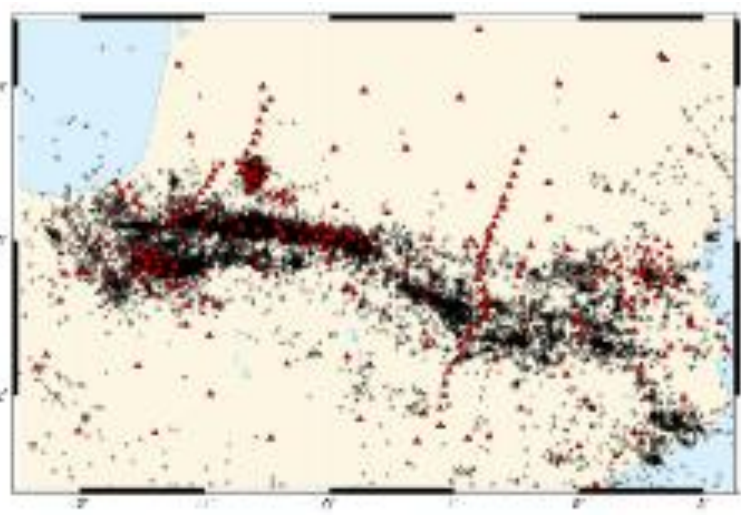
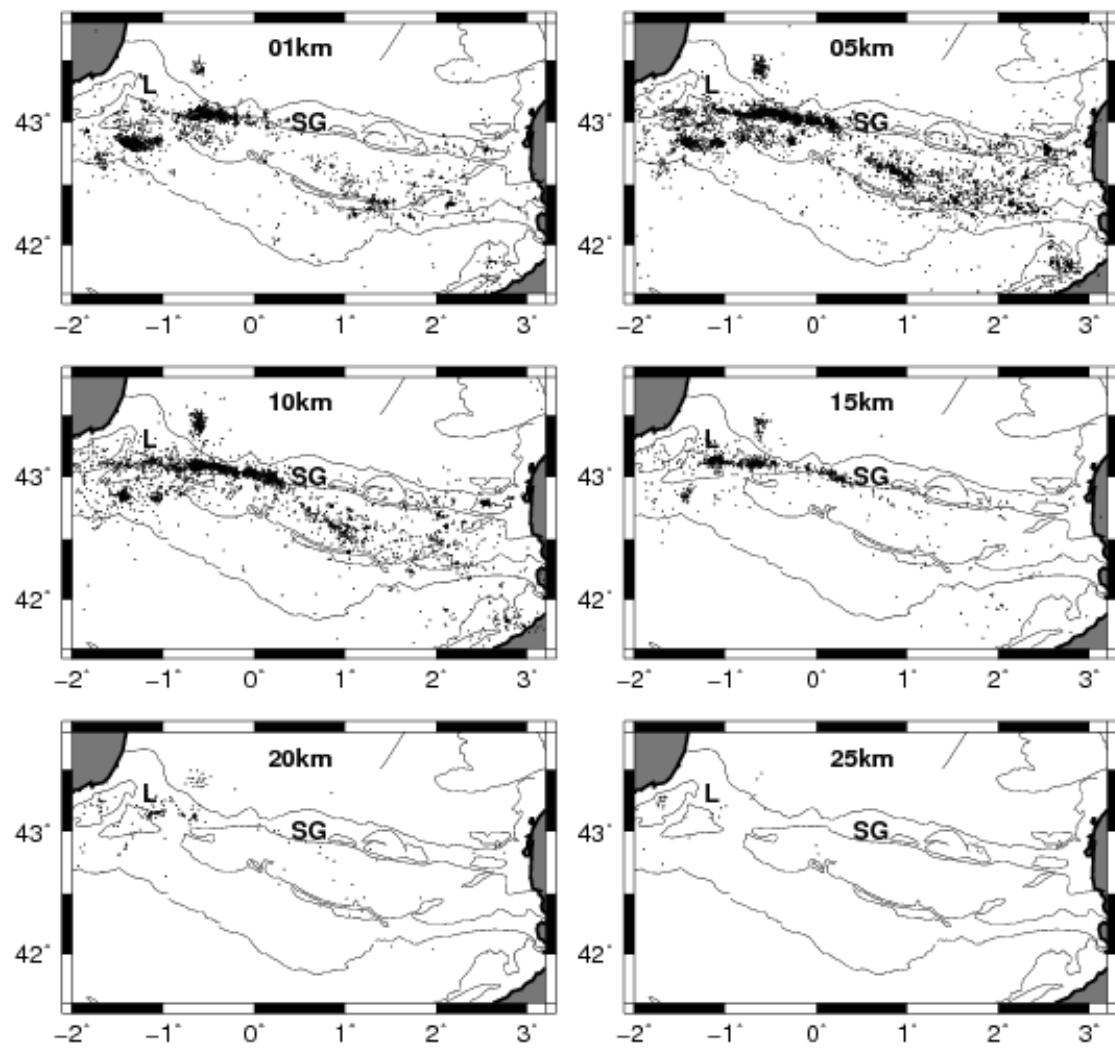


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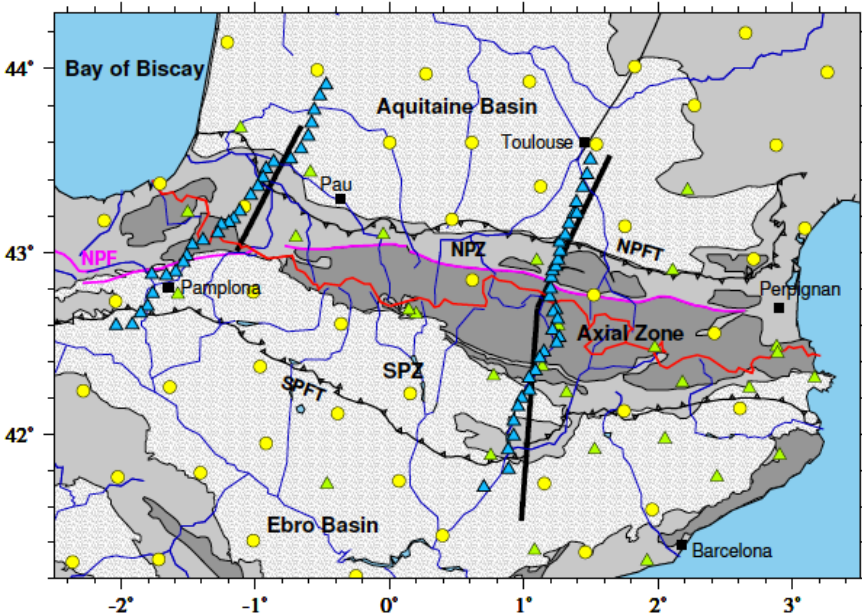


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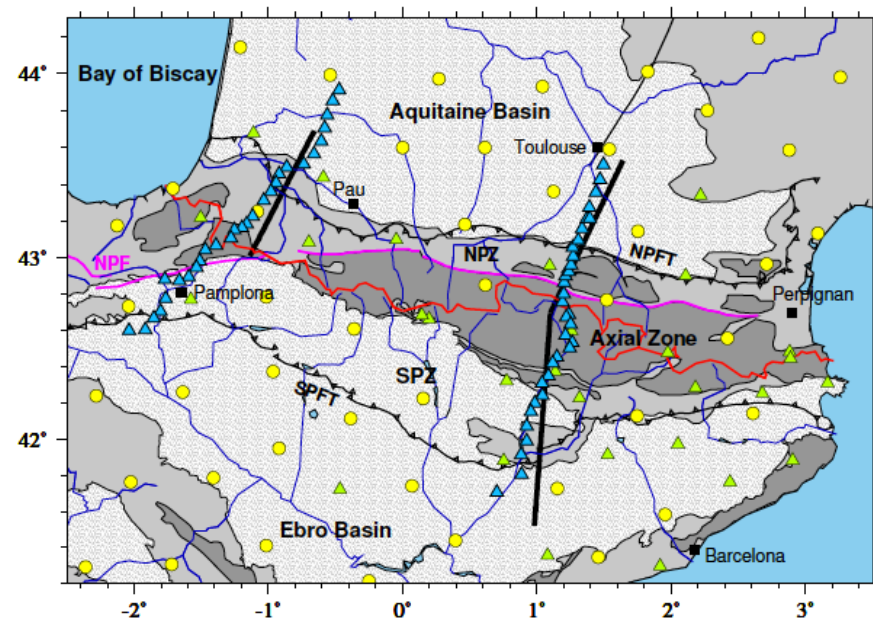
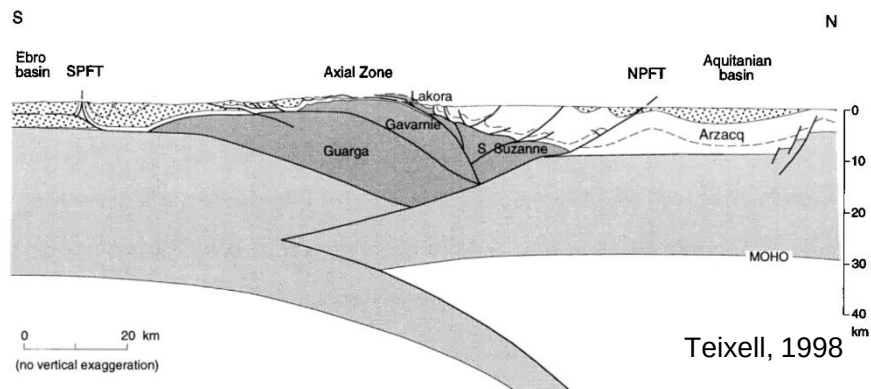


Données Géologiques



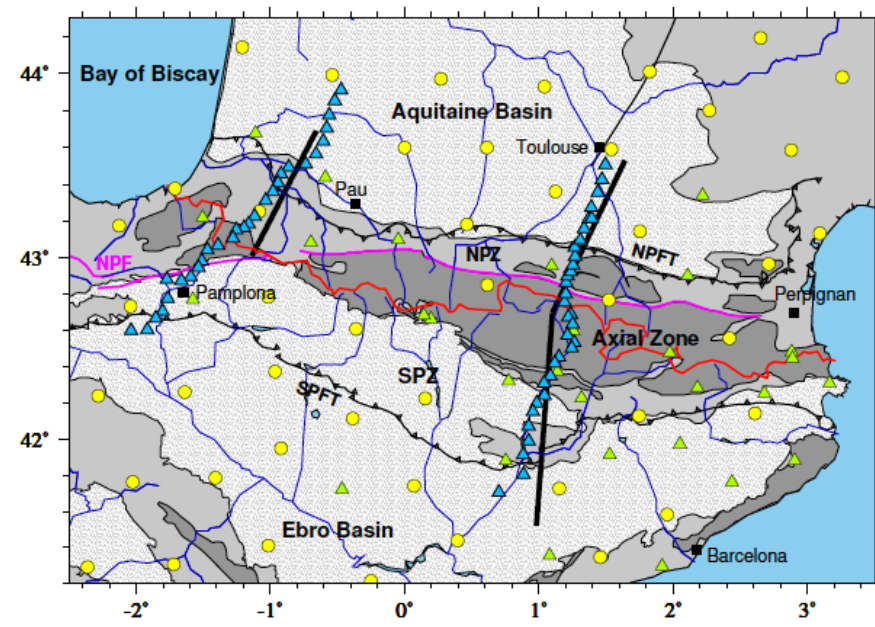
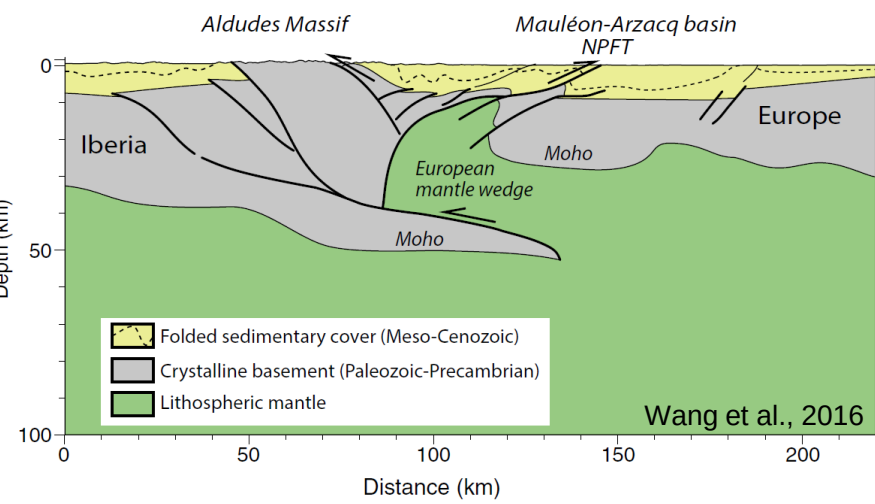
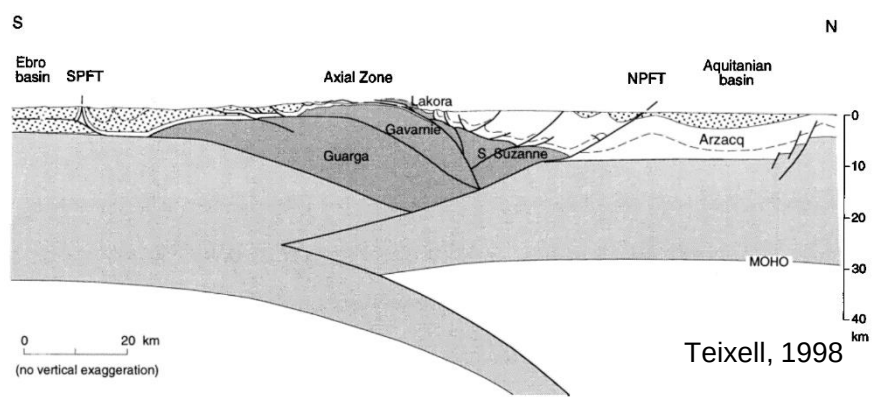
Chevrot et al. 2015

ECORS-Arzacq vs. PYROPE West

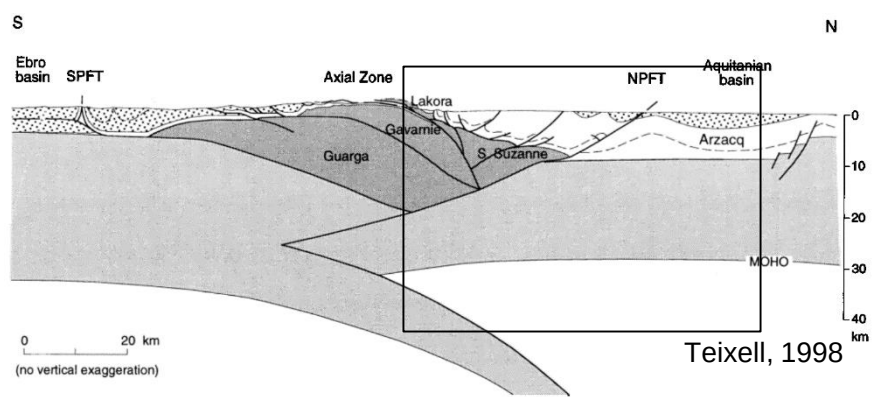


Chevrot et al. 2015

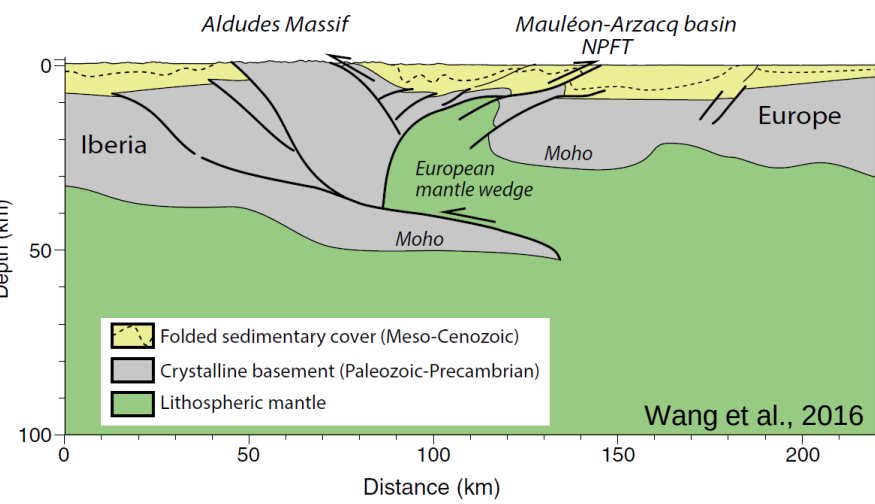
ECORS-Arzacq vs. PYROPE West



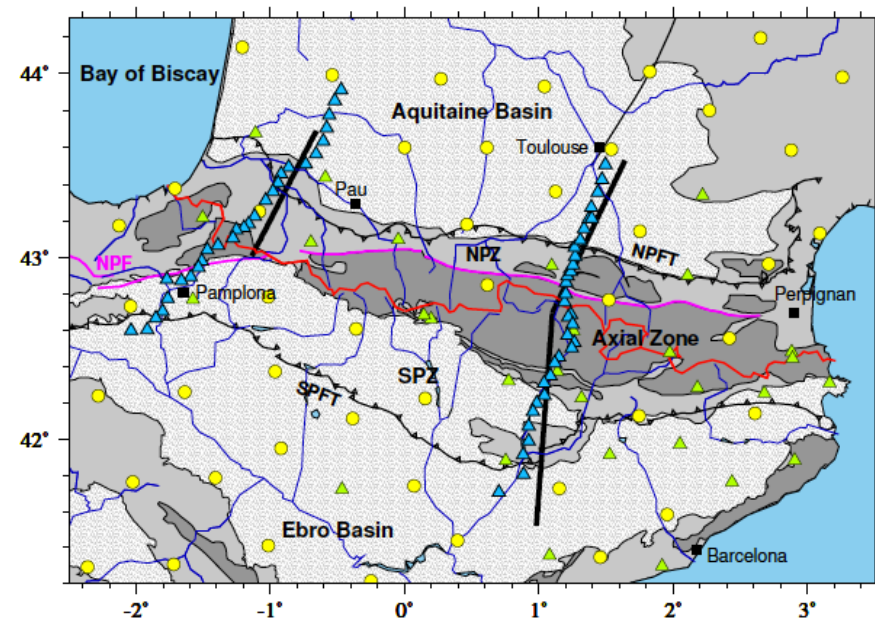
ECORS-Arzacq vs. PYROPE West



Teixell, 1998

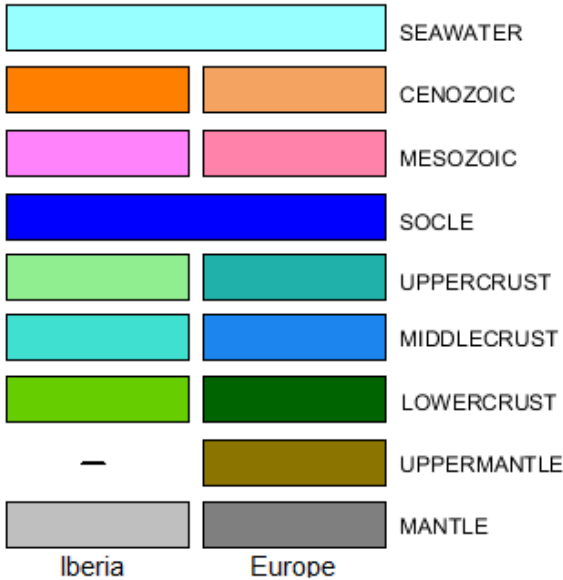


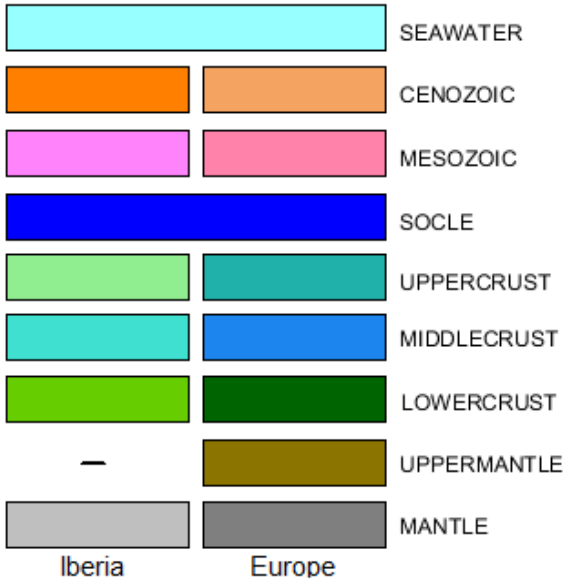
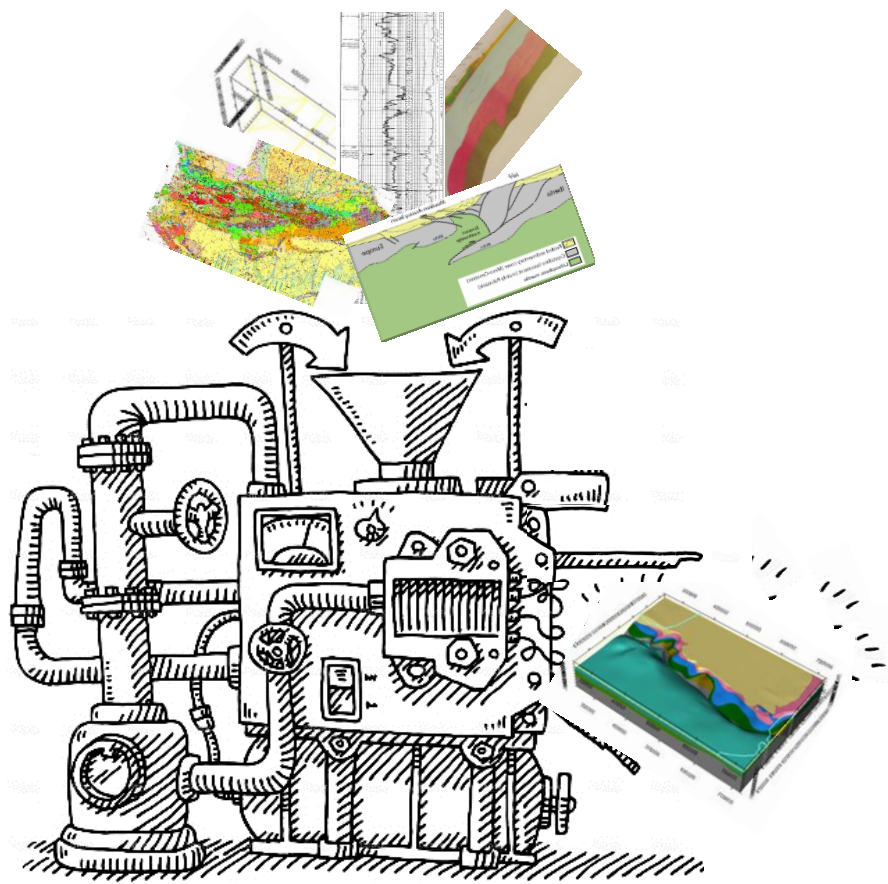
Wang et al., 2016



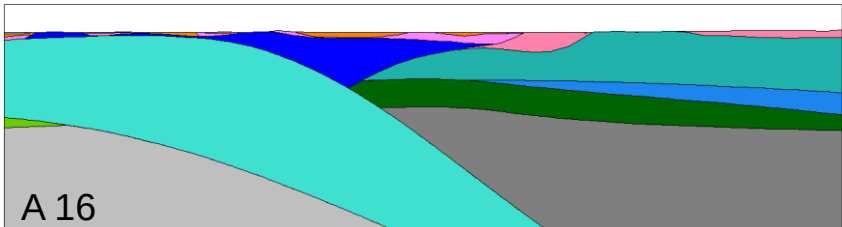
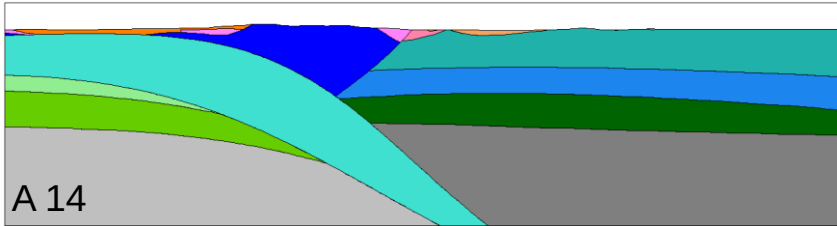
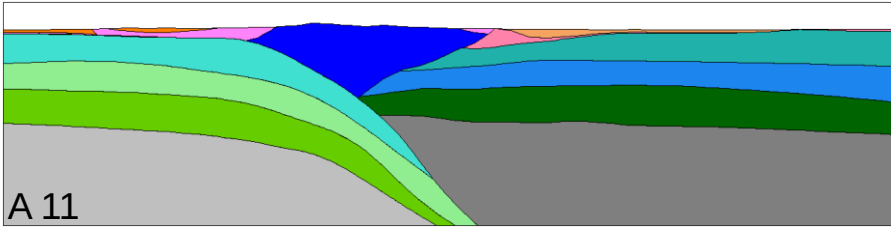
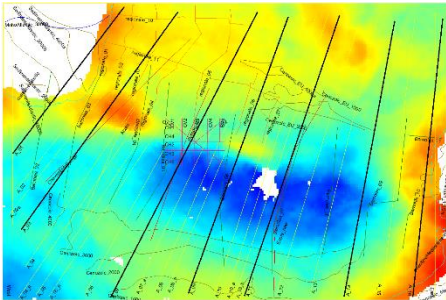
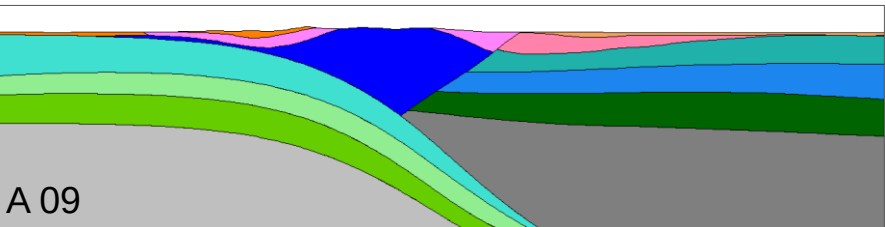
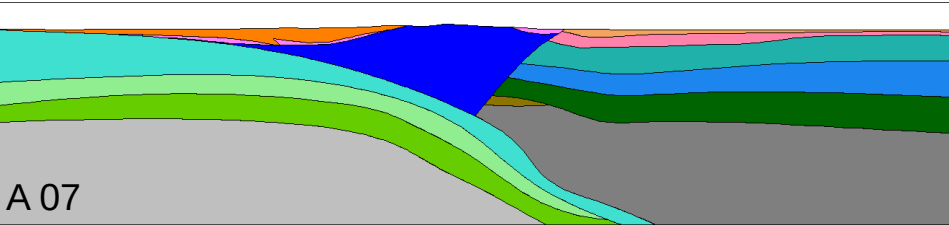
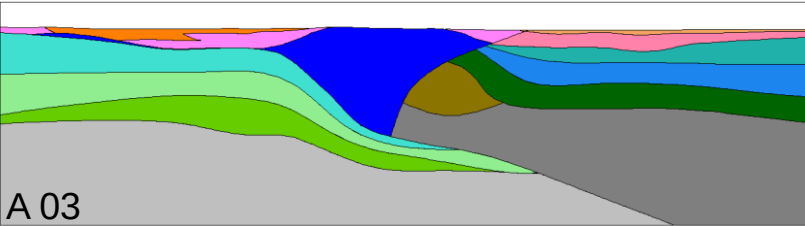
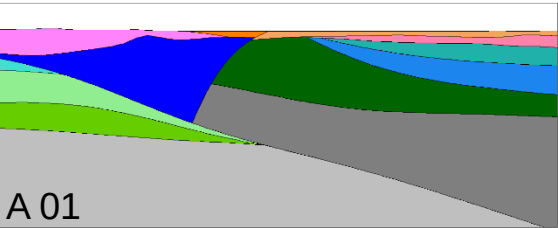
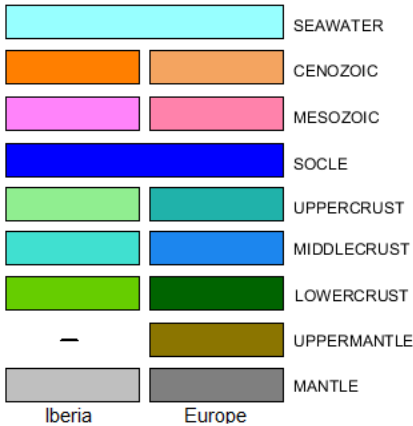
Chevrot et al. 2015

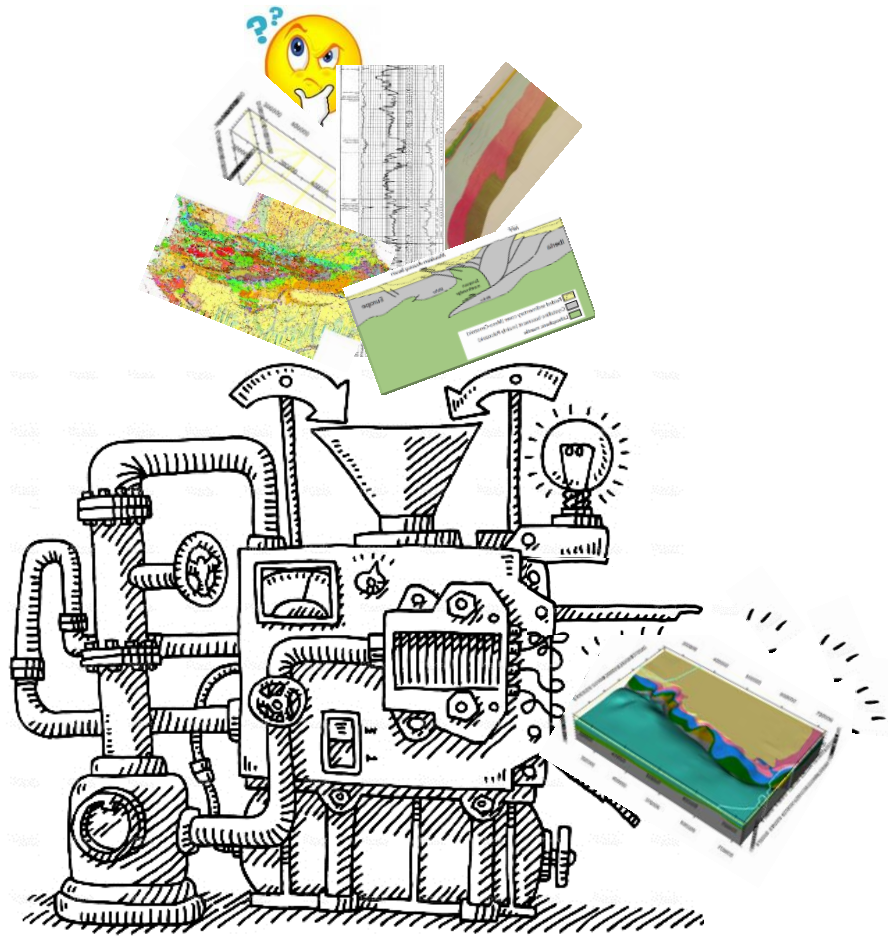
Modélisation



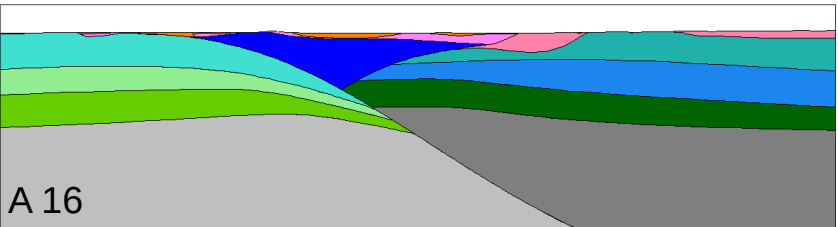
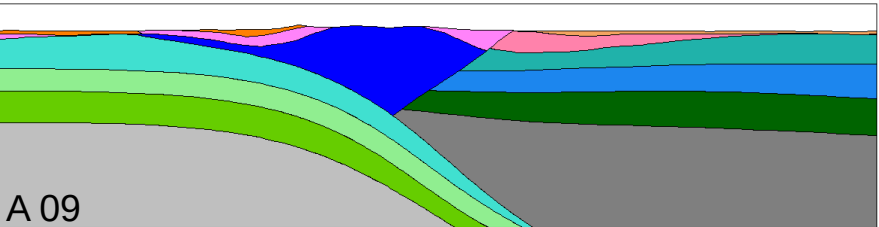
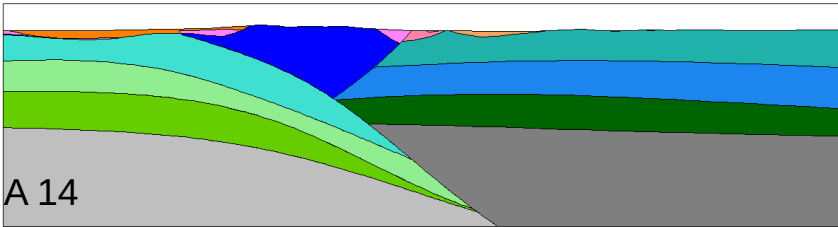
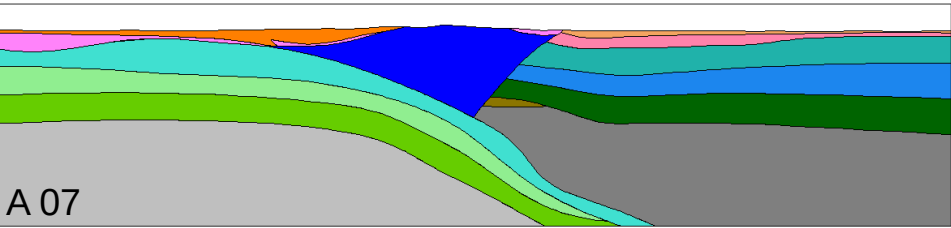
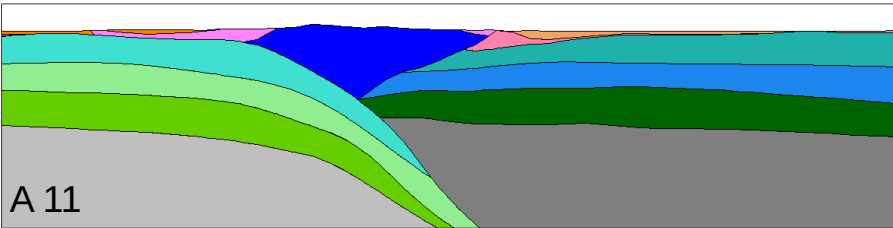
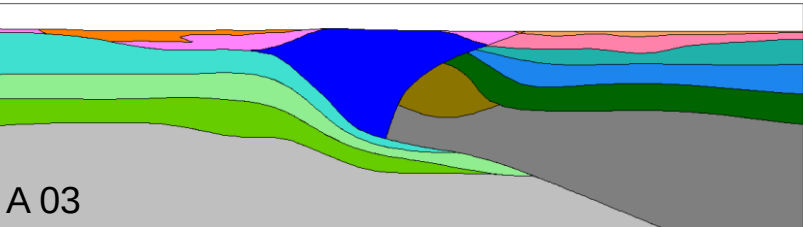
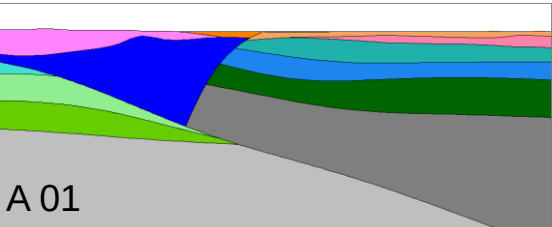
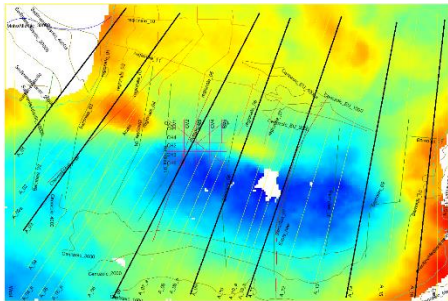
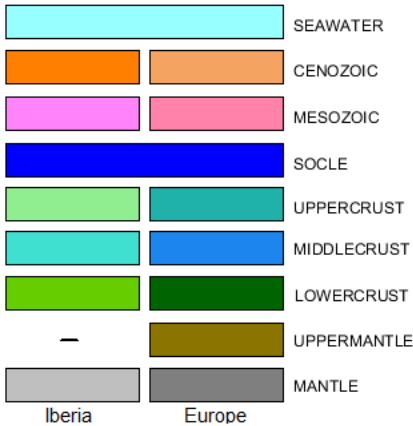


Modèle Géologique (A)

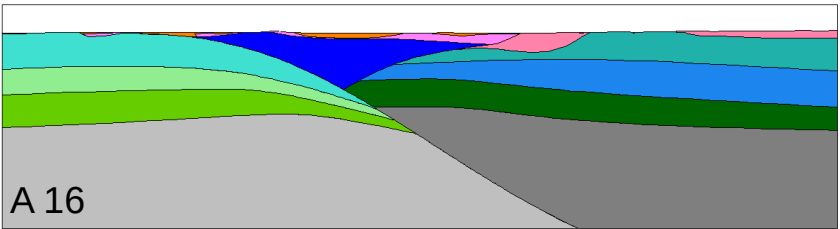
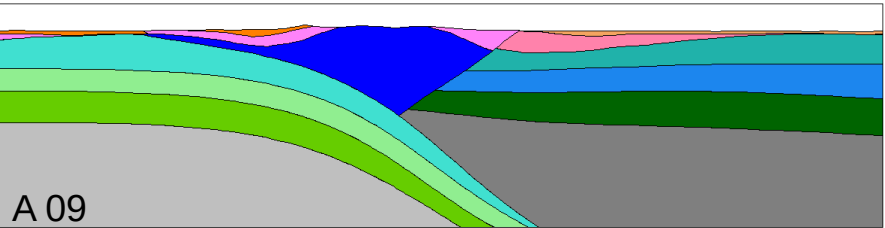
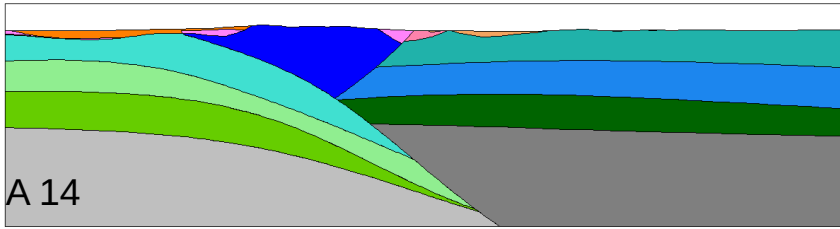
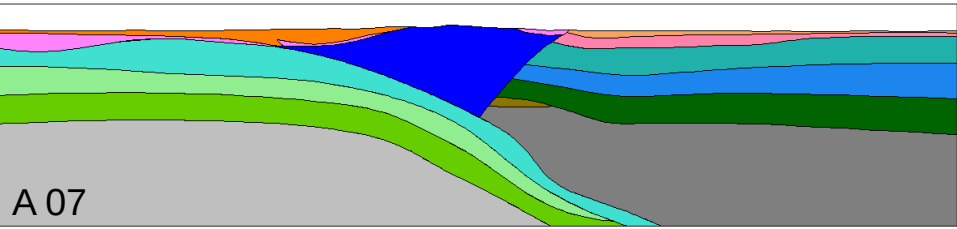
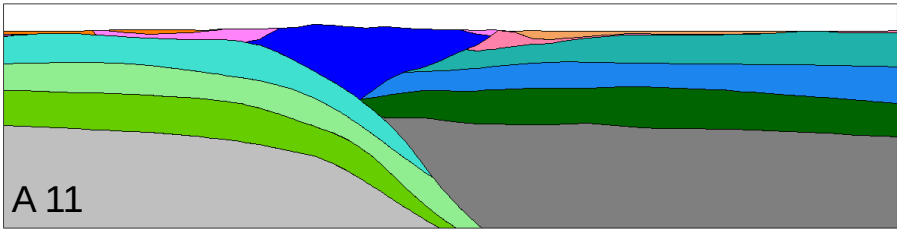
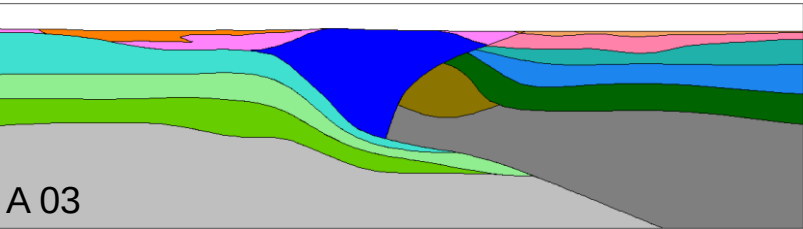
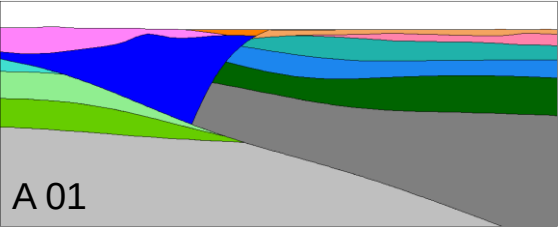
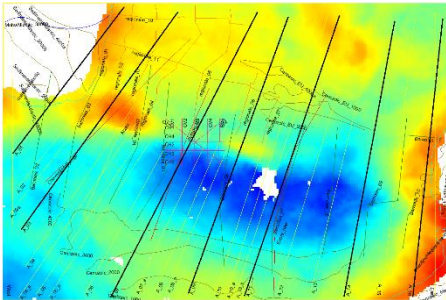
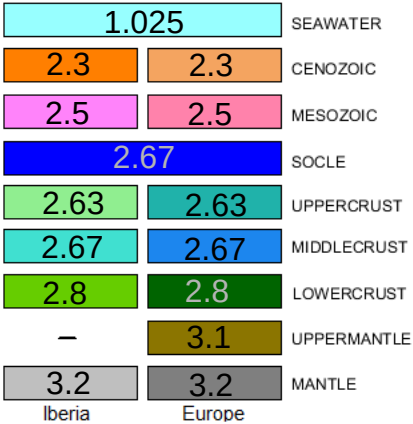


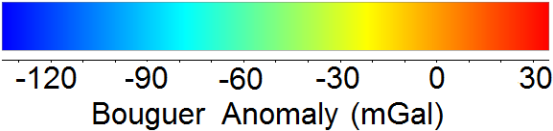
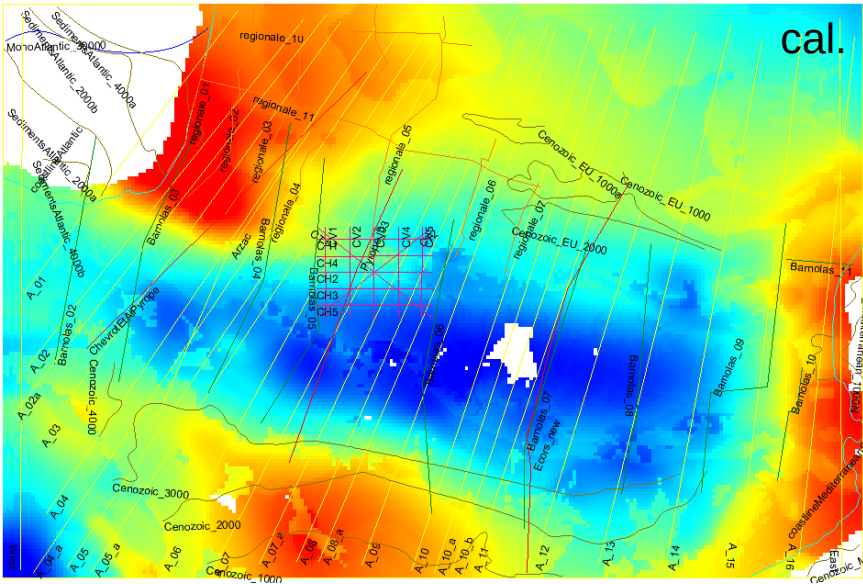
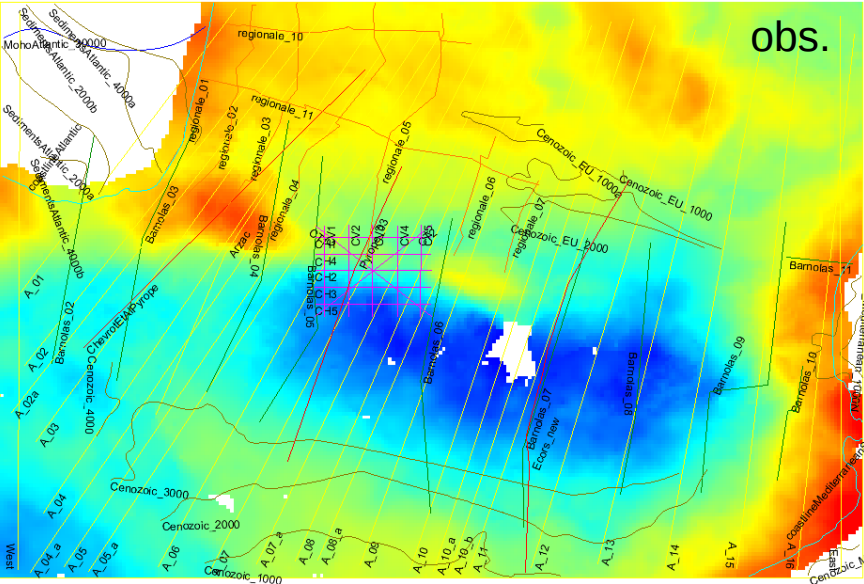


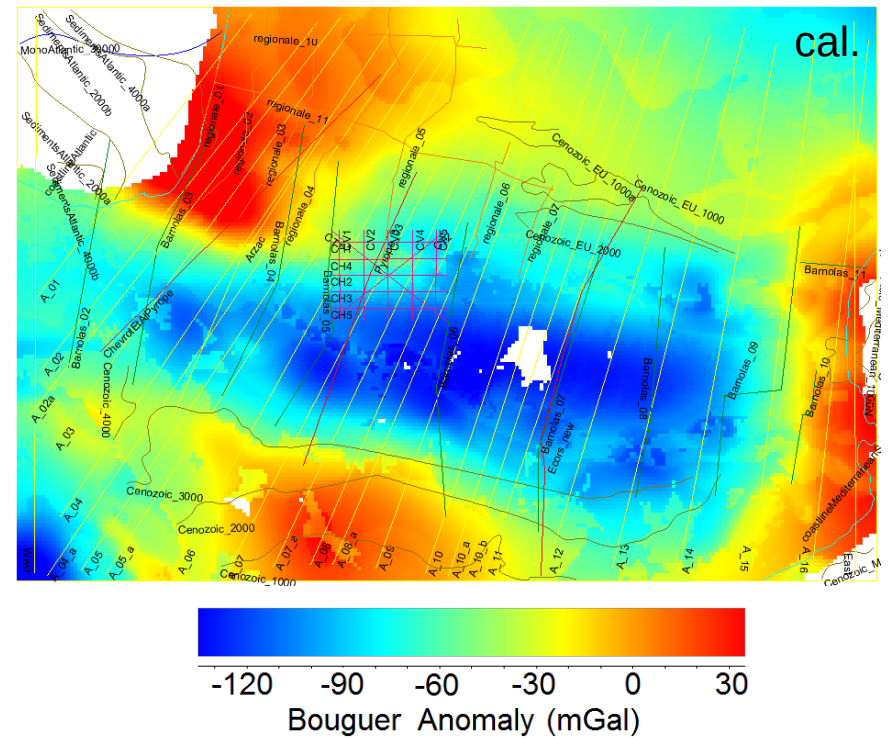
Modèle Géologique (B)

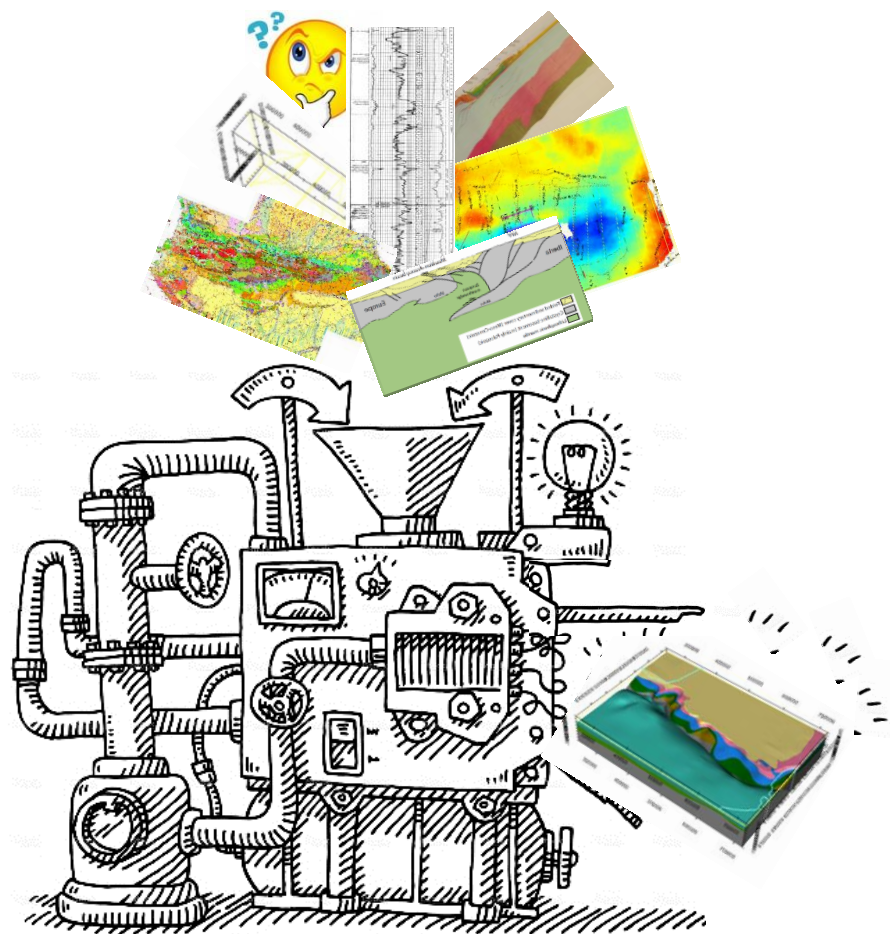


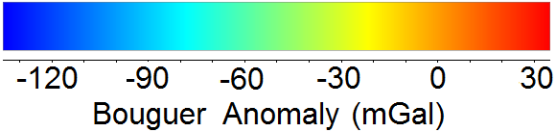
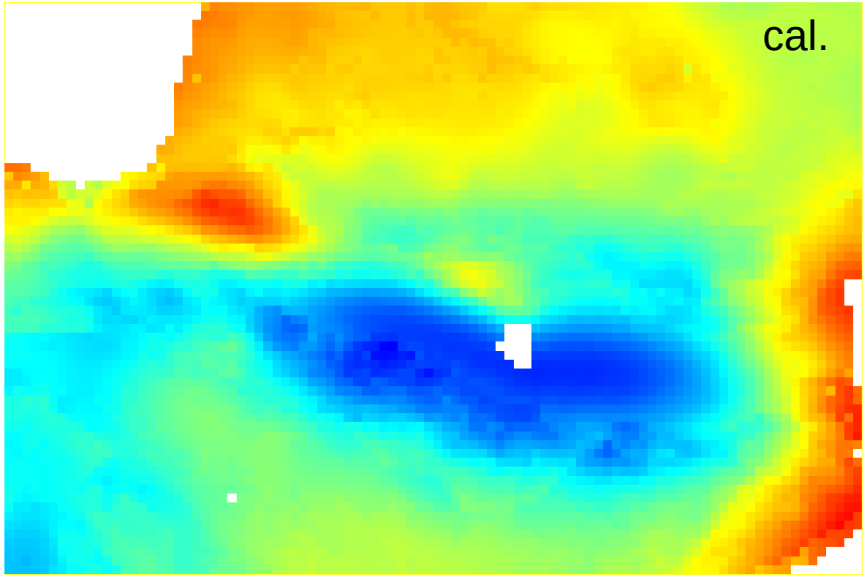
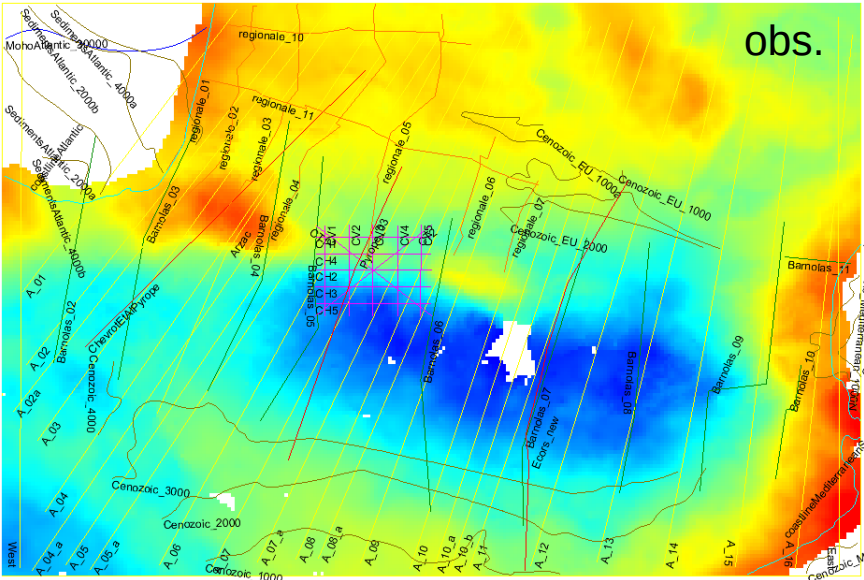
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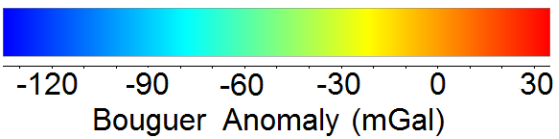
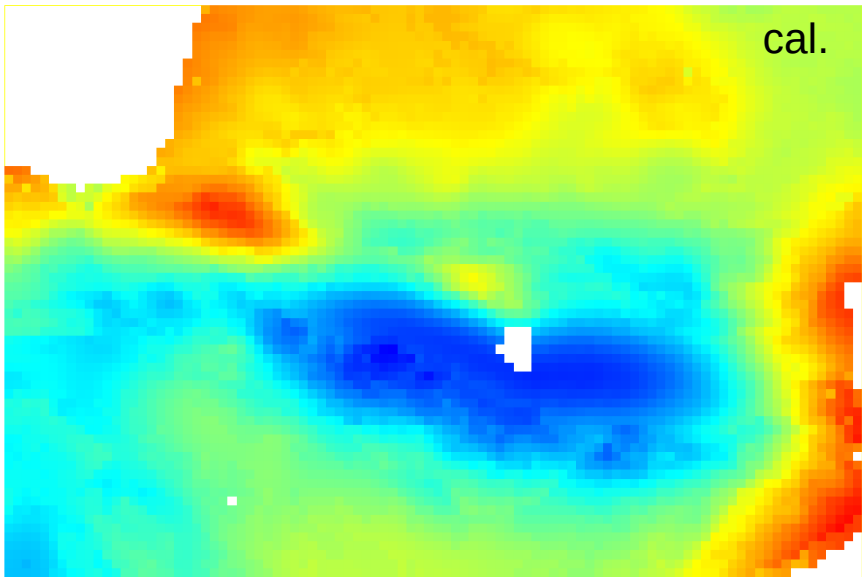
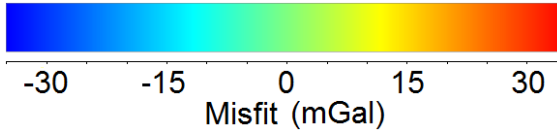
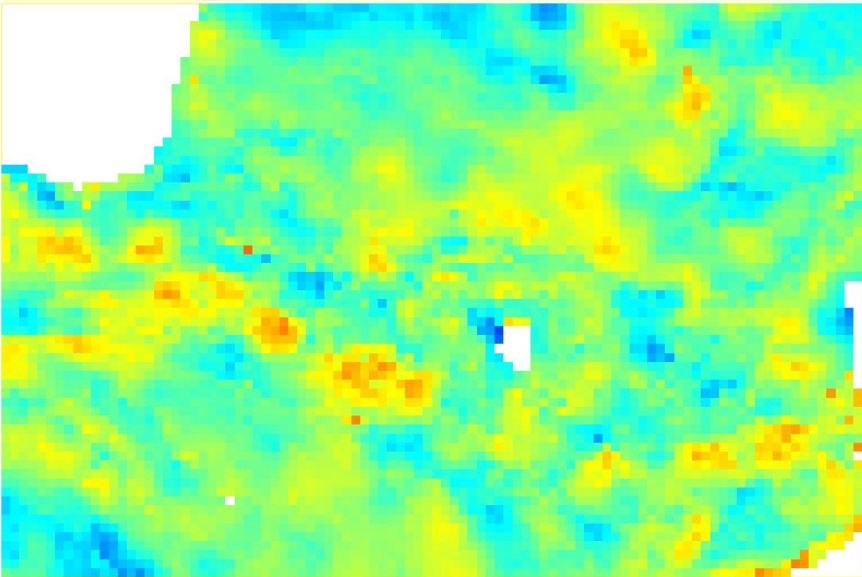






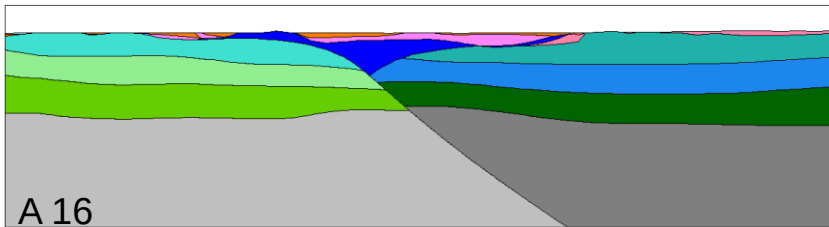
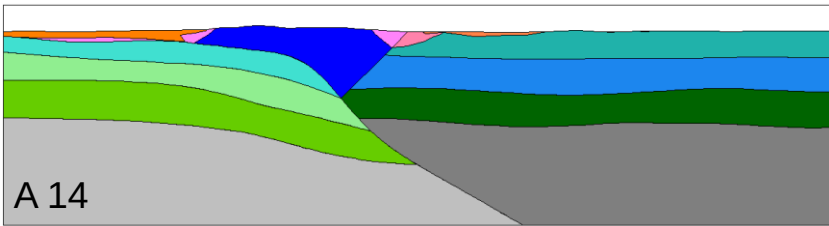
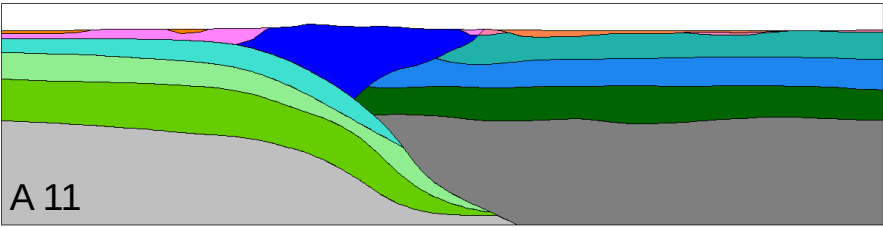
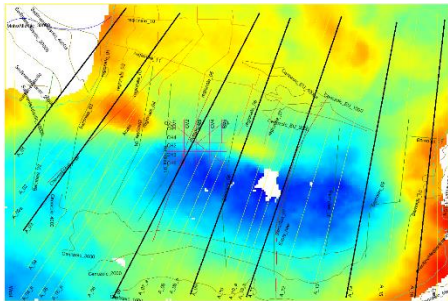
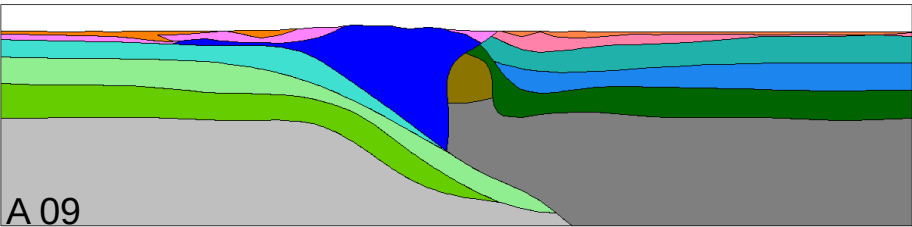
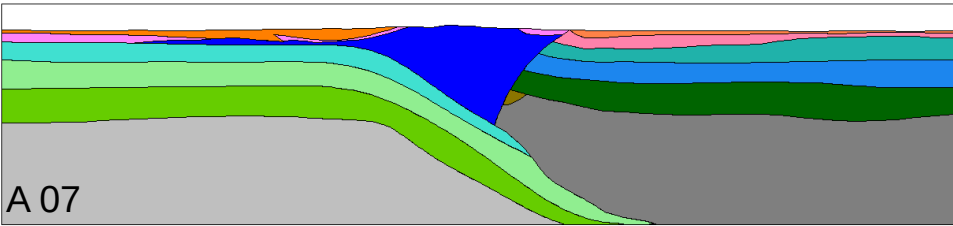
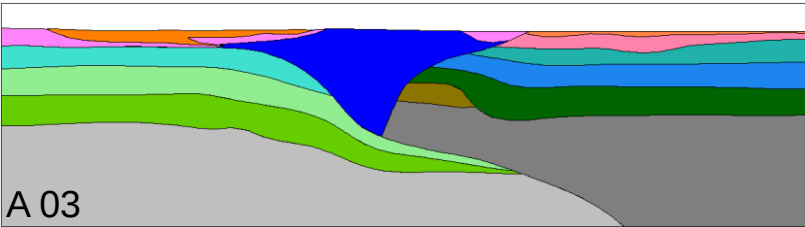
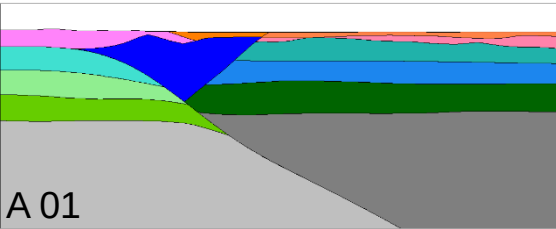




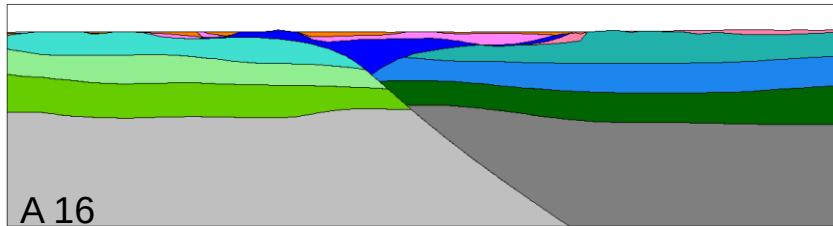
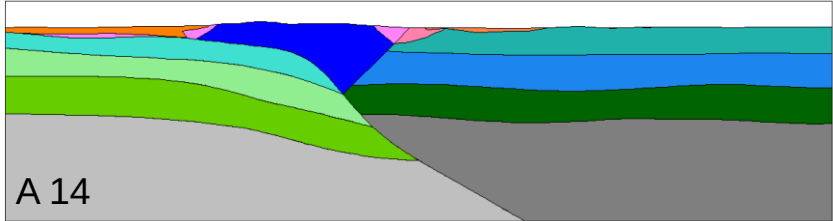
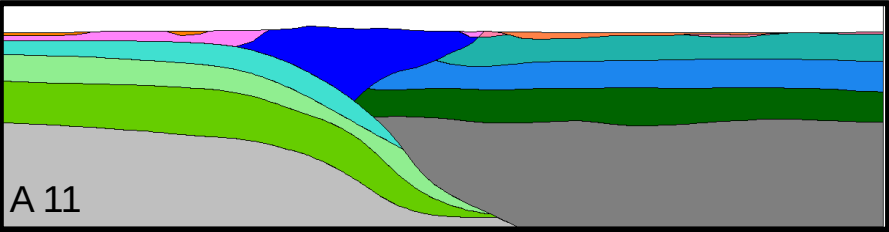
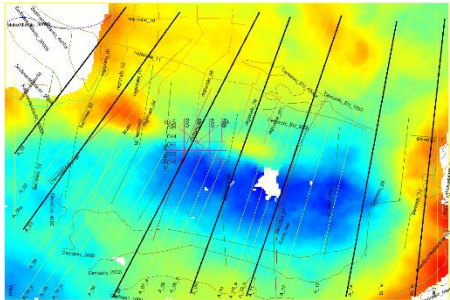
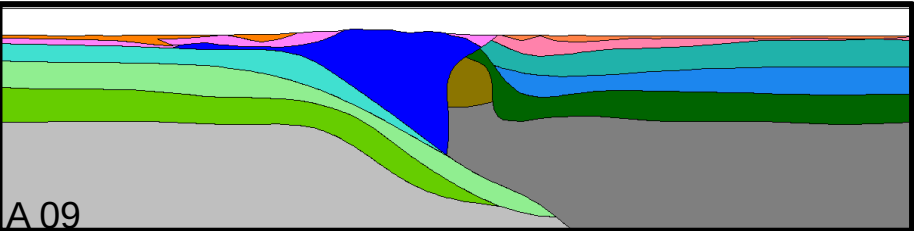
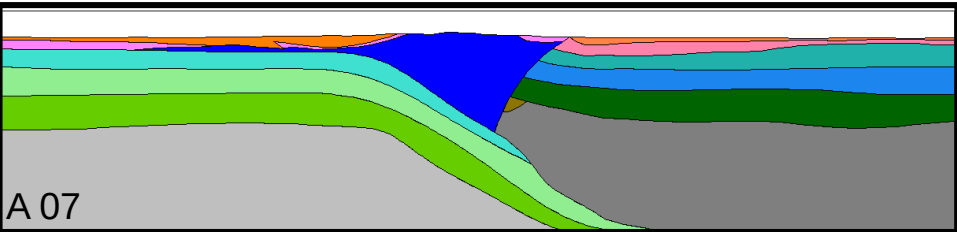
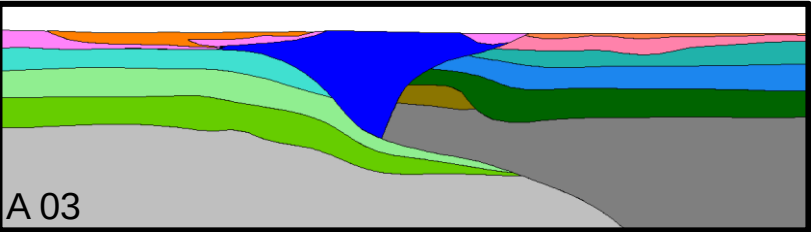
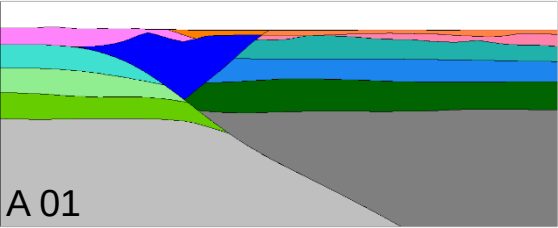
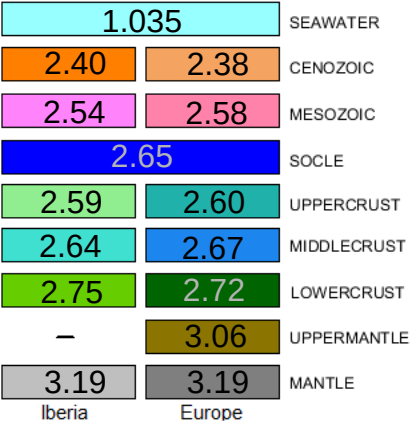


Modèle Géologique (C)

1.035		SEAWATER
2.40	2.38	CENOZOIC
2.54	2.58	MESOZOIC
2.65		SOCLE
2.59	2.60	UPPERCRUST
2.64	2.67	MIDDLECRUST
2.75	2.72	LOWERCrust
—	3.06	UPPERMANTLE
3.19	3.19	MANTLE
Iberia	Europe	

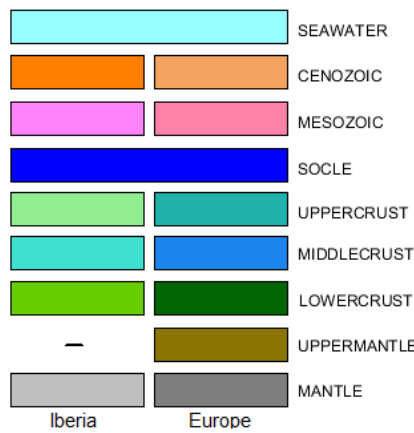
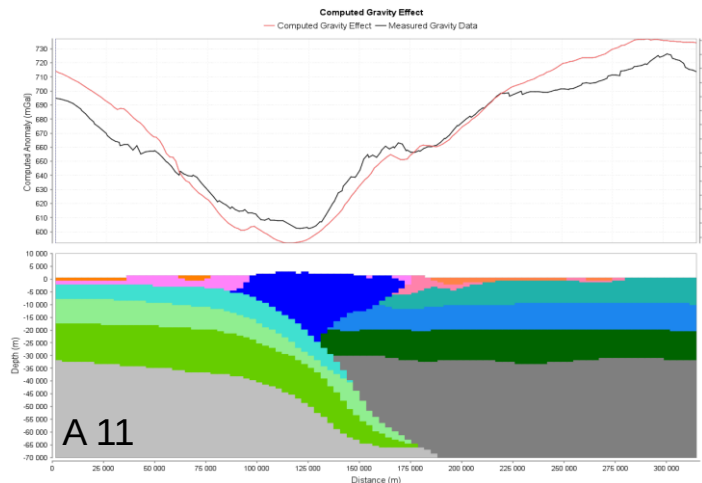
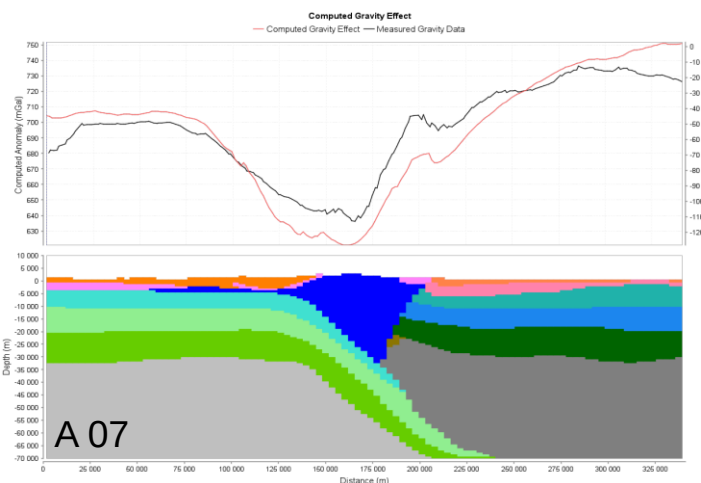
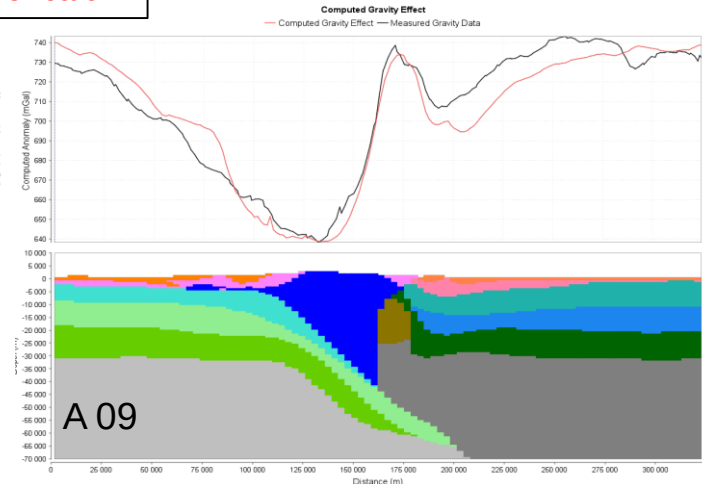
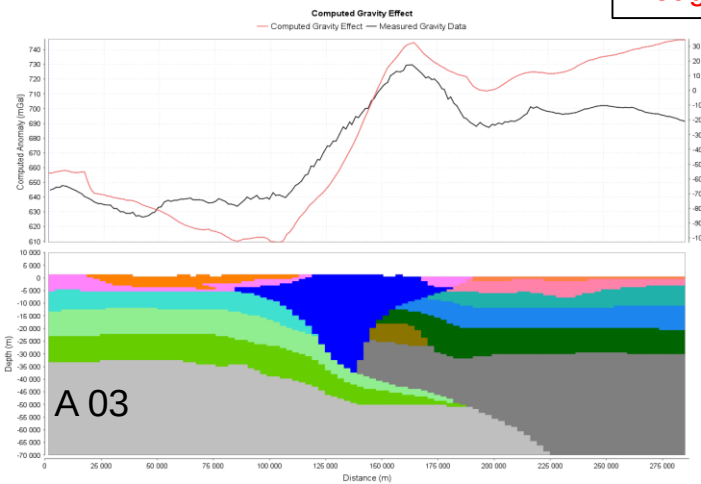
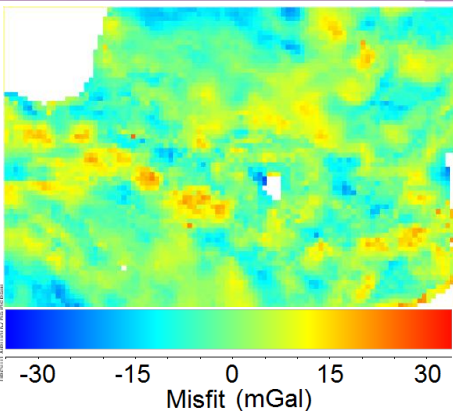


Modèle Géologique (C)

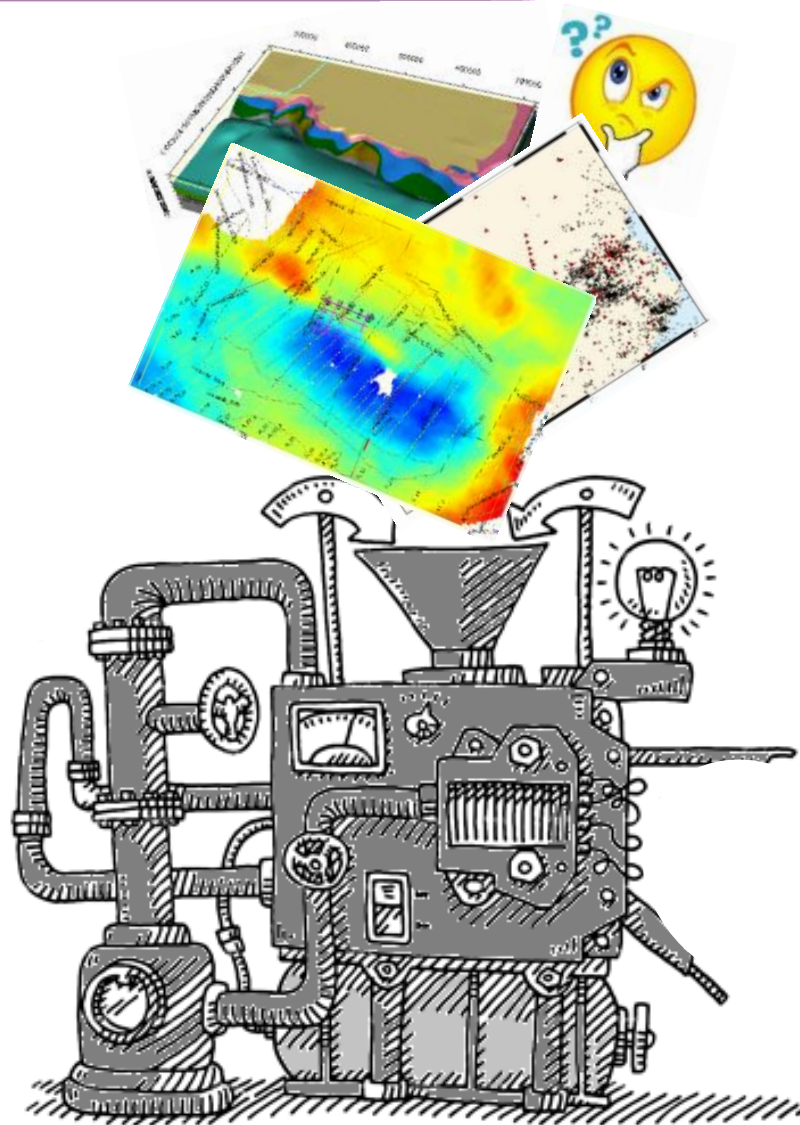


Bouguer obs.

Bouguer calc.

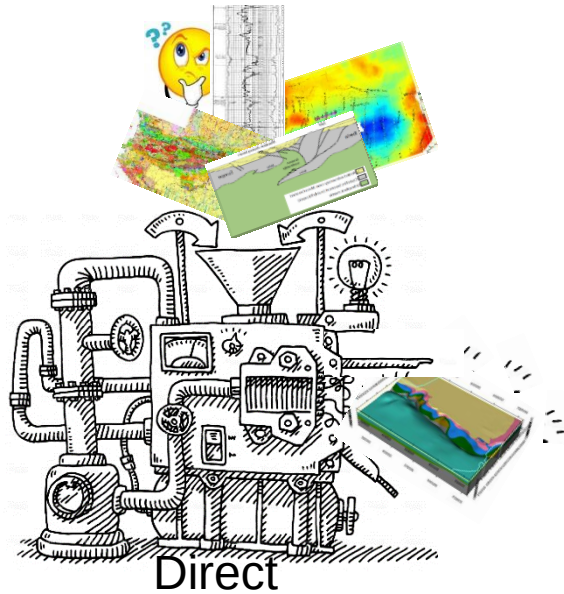


Inversion



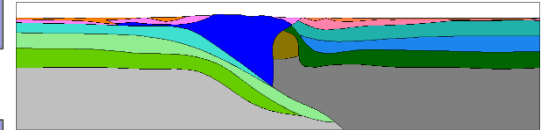
à venir ...

Conclusion

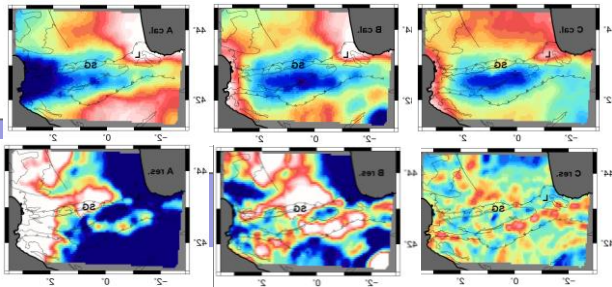
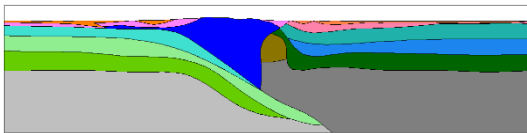
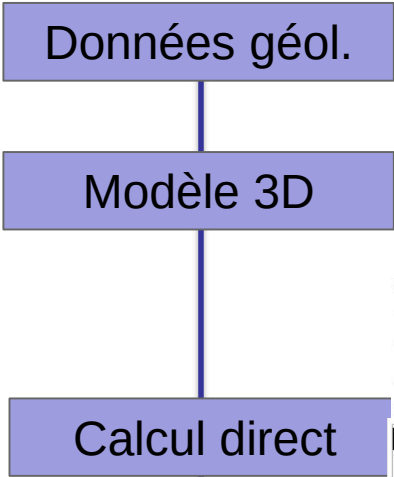
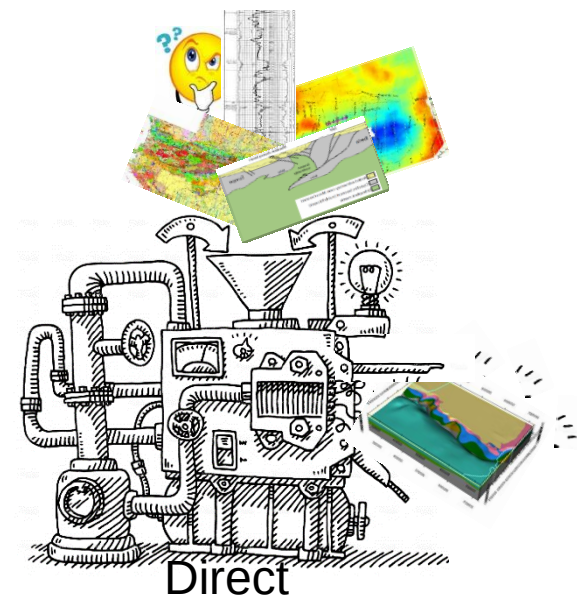


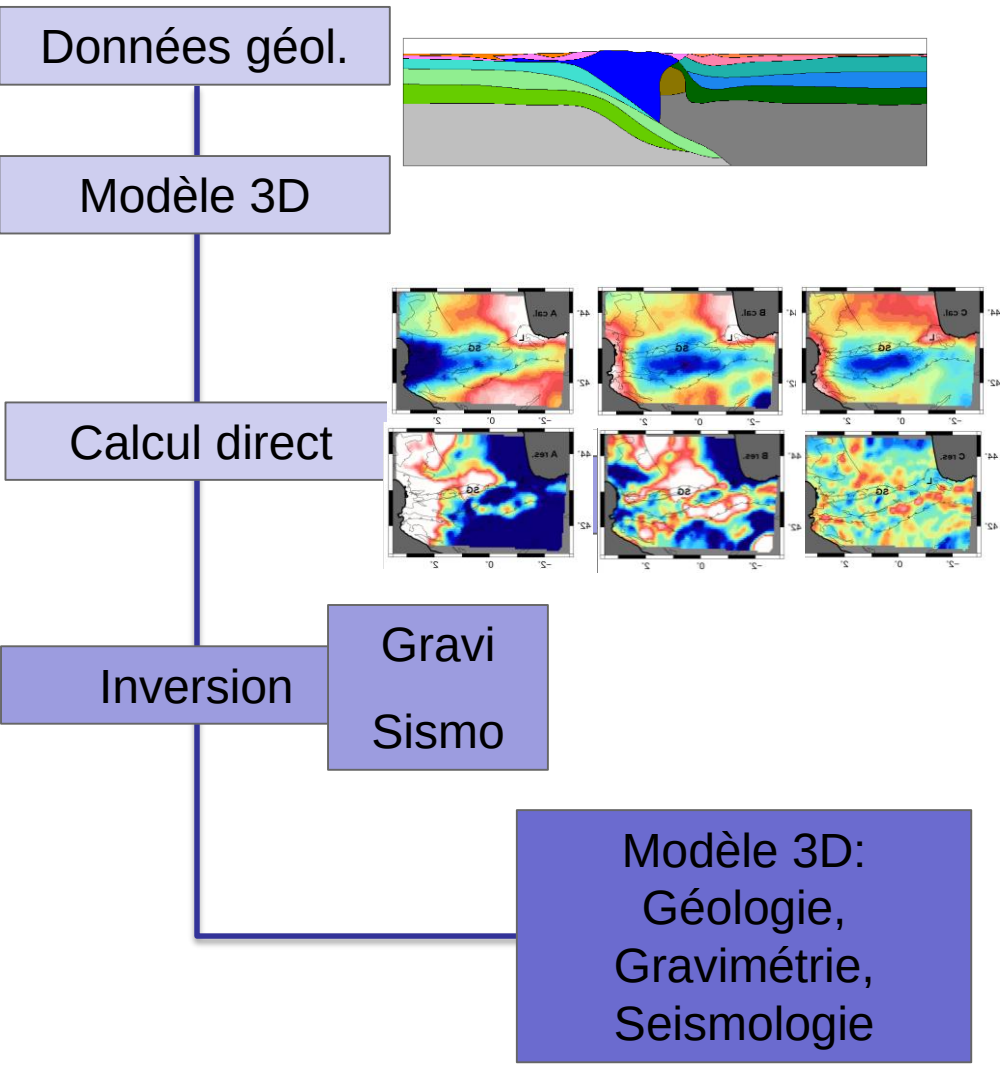
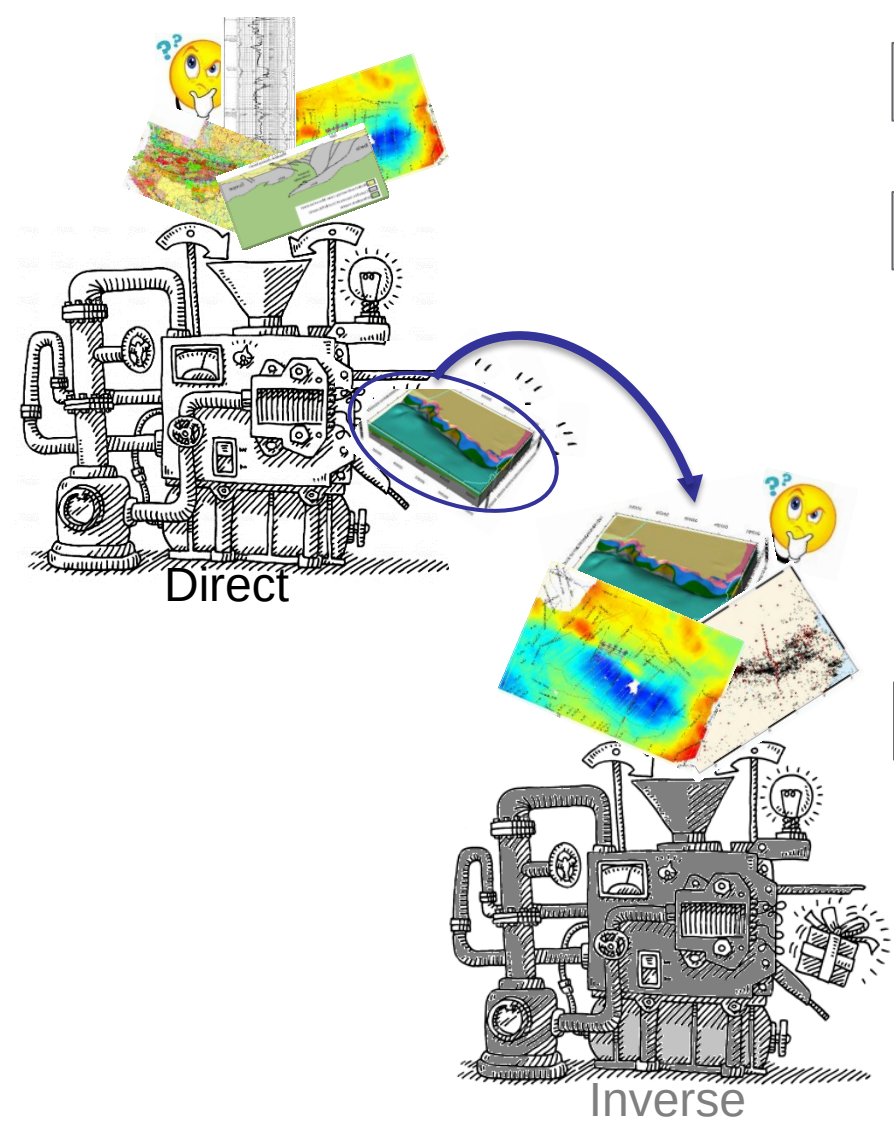
Données géol.

Modèle 3D



Conclusion

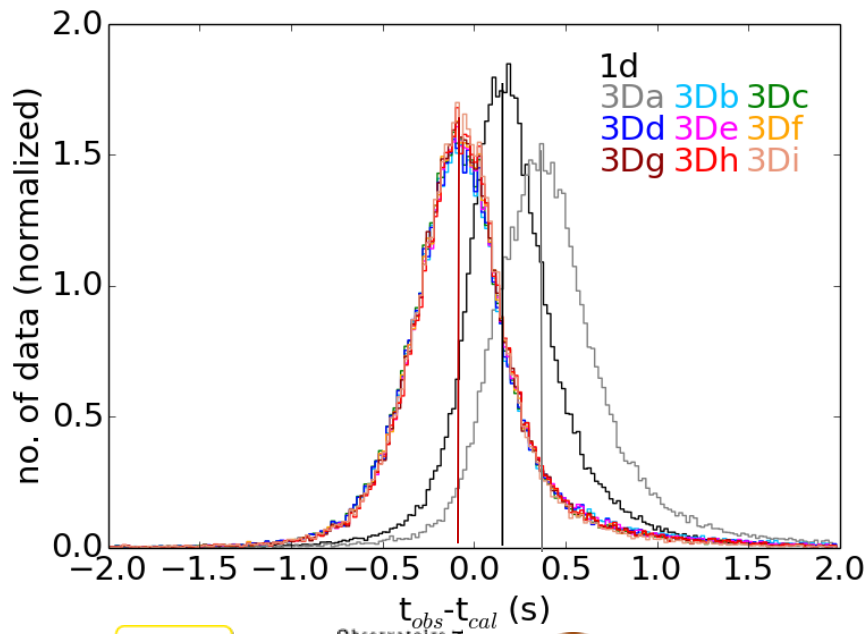


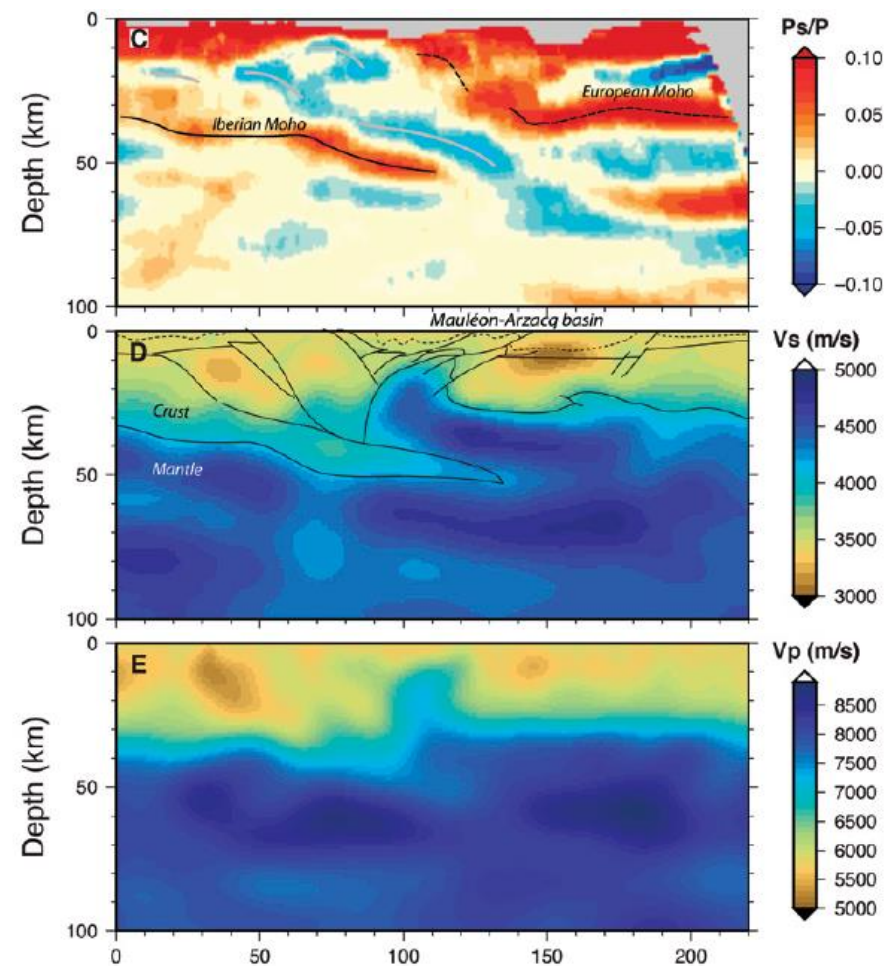


Merci de votre
attention.

Lithology	p-wave velocity (km/s)								
	3Da	3Db	3Dc	3Dd	3De	3Df	3Dg	3Dh	3Di
Sea Water	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Cenozoic	5.5	3.0	3.0	3.0	3.2	3.2	3.5	3.2	3.2
Mesozoic	5.6	5.0	5.0	5.0	5.1	5.1	5.1	5.2	5.2
Upper Crust	6.1	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Middle Crust	6.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Lower Crust	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Upper Mantle	7.8	7.8	7.4	7.6	7.6	7.4	7.4	7.4	7.0
Mantle	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0

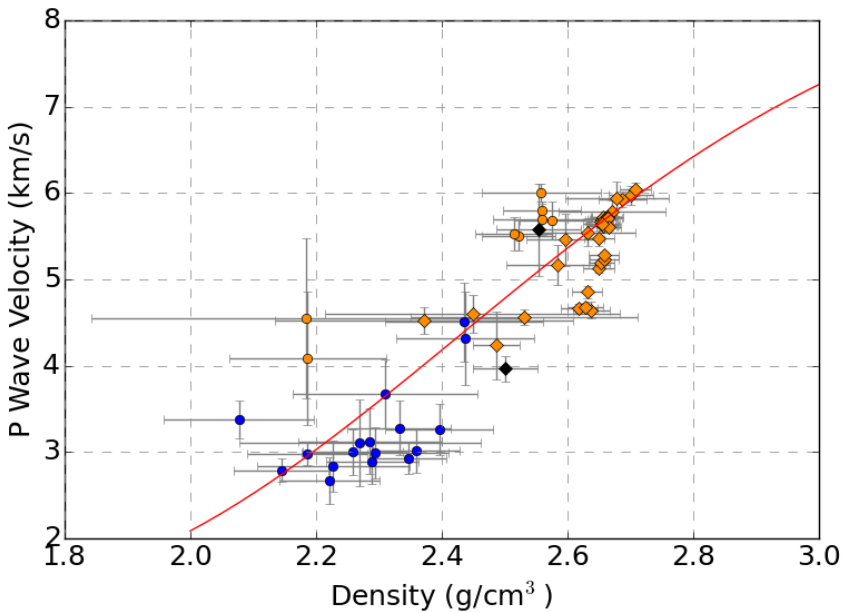
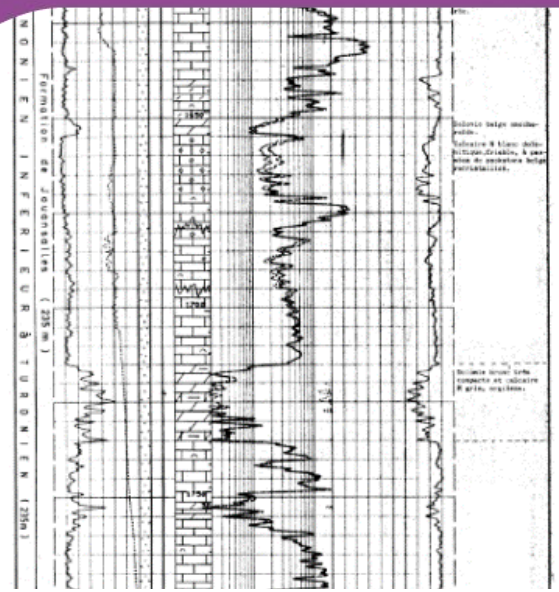
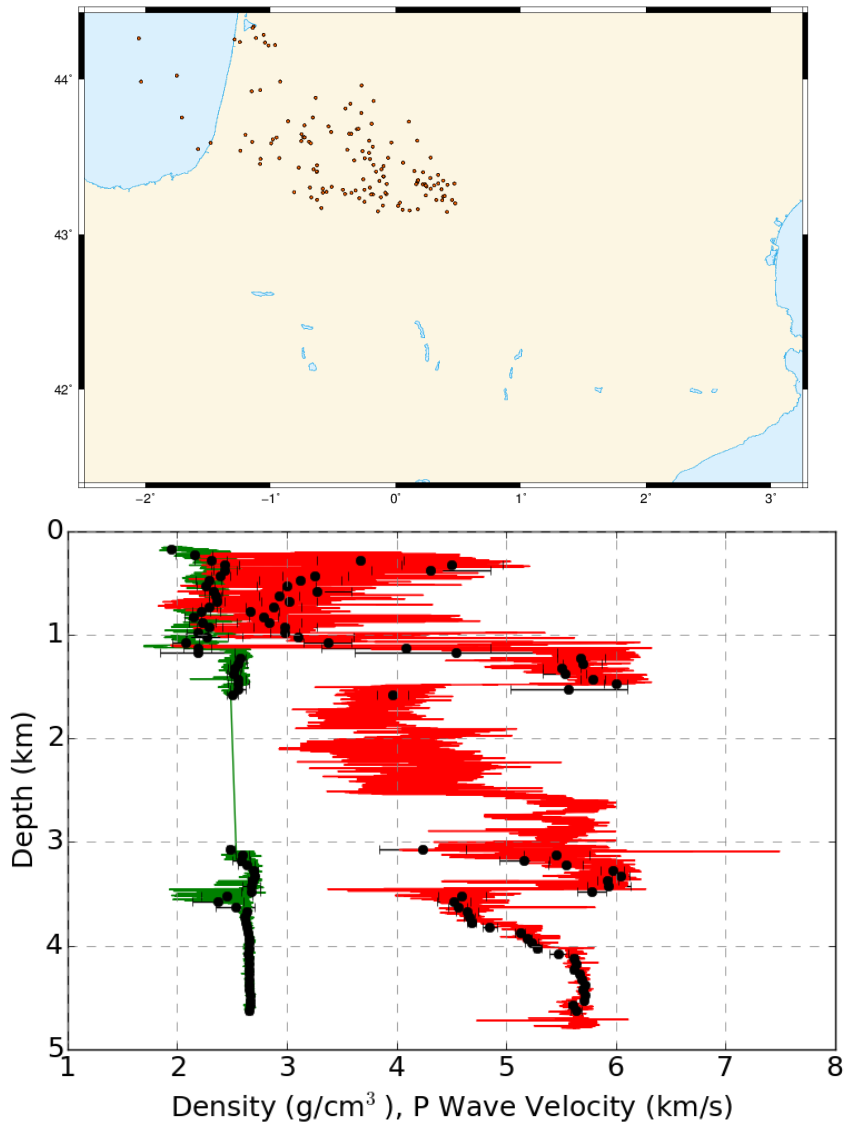
Model	Aver. Res. (s)
1D	0.2236 ± 0.5933
3Da	0.4423 ± 0.6382
3Db	-0.0273 ± 0.6559
3Dc	-0.0529 ± 0.6274
3Dd	-0.0401 ± 0.6412
3De	-0.0295 ± 0.6386
3Df	-0.0422 ± 0.6249
3Dg	-0.0384 ± 0.6233
3Dh	-0.0342 ± 0.6240
3Di	-0.0568 ± 0.6040

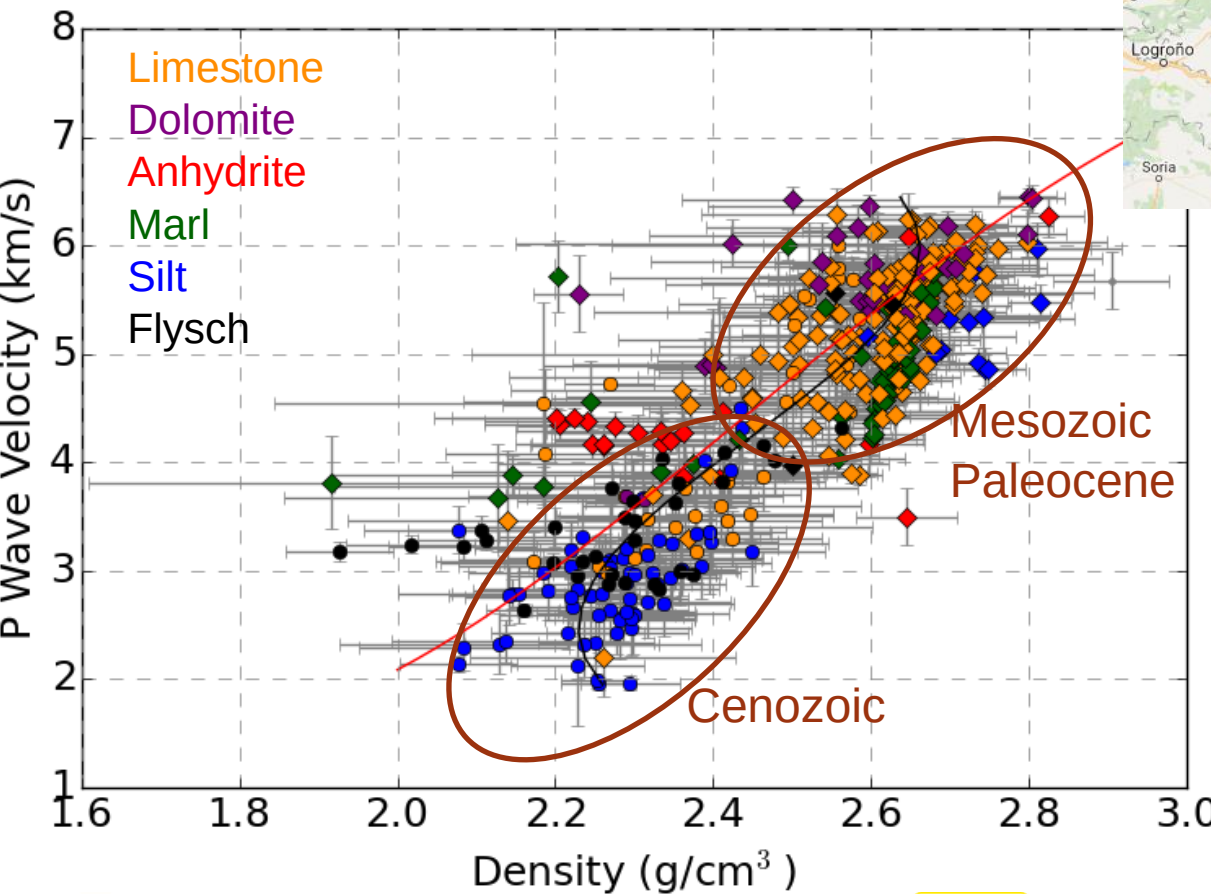




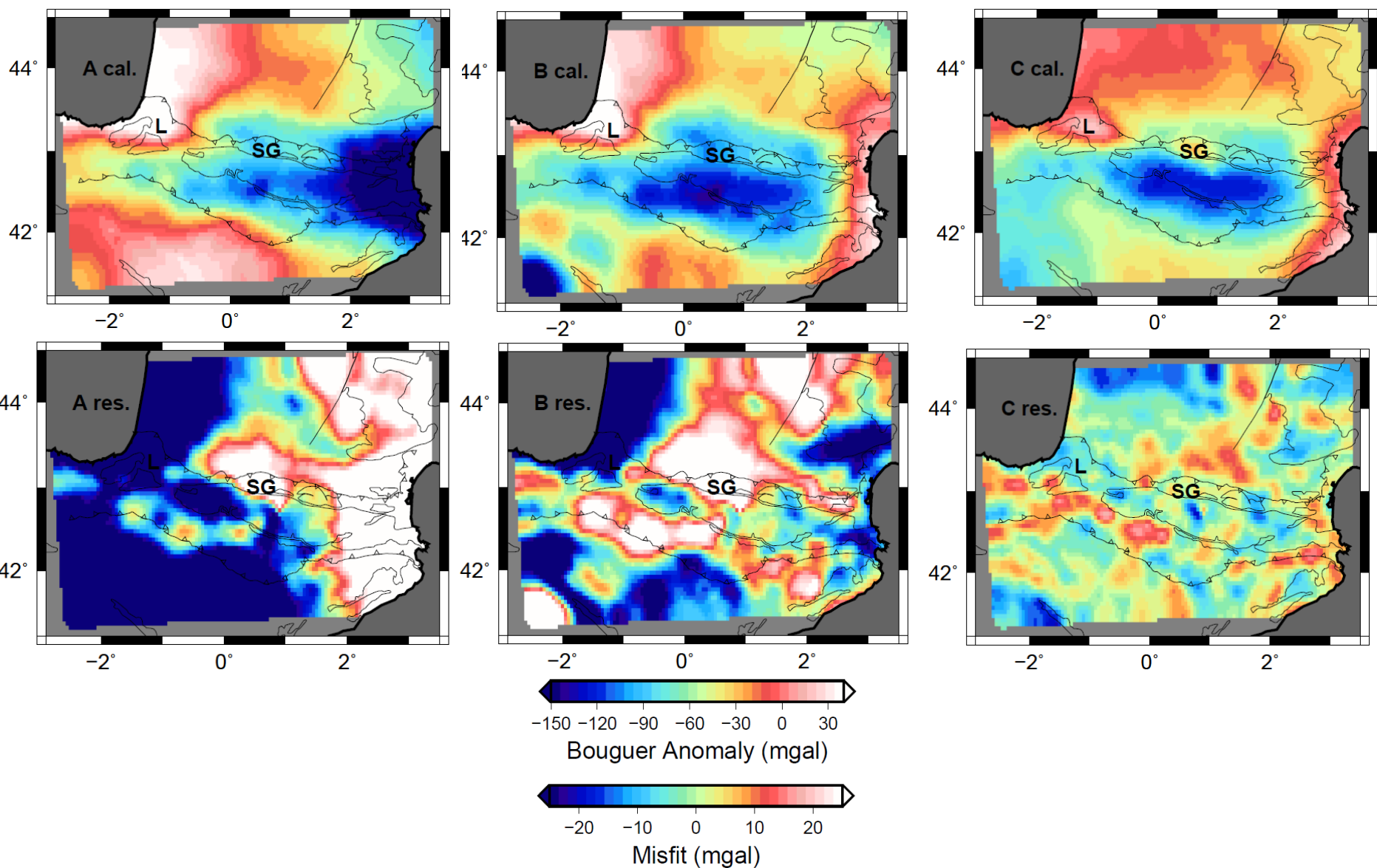
Wang et al., 2016

Pétrophysique du Bassin d'Aquitaine

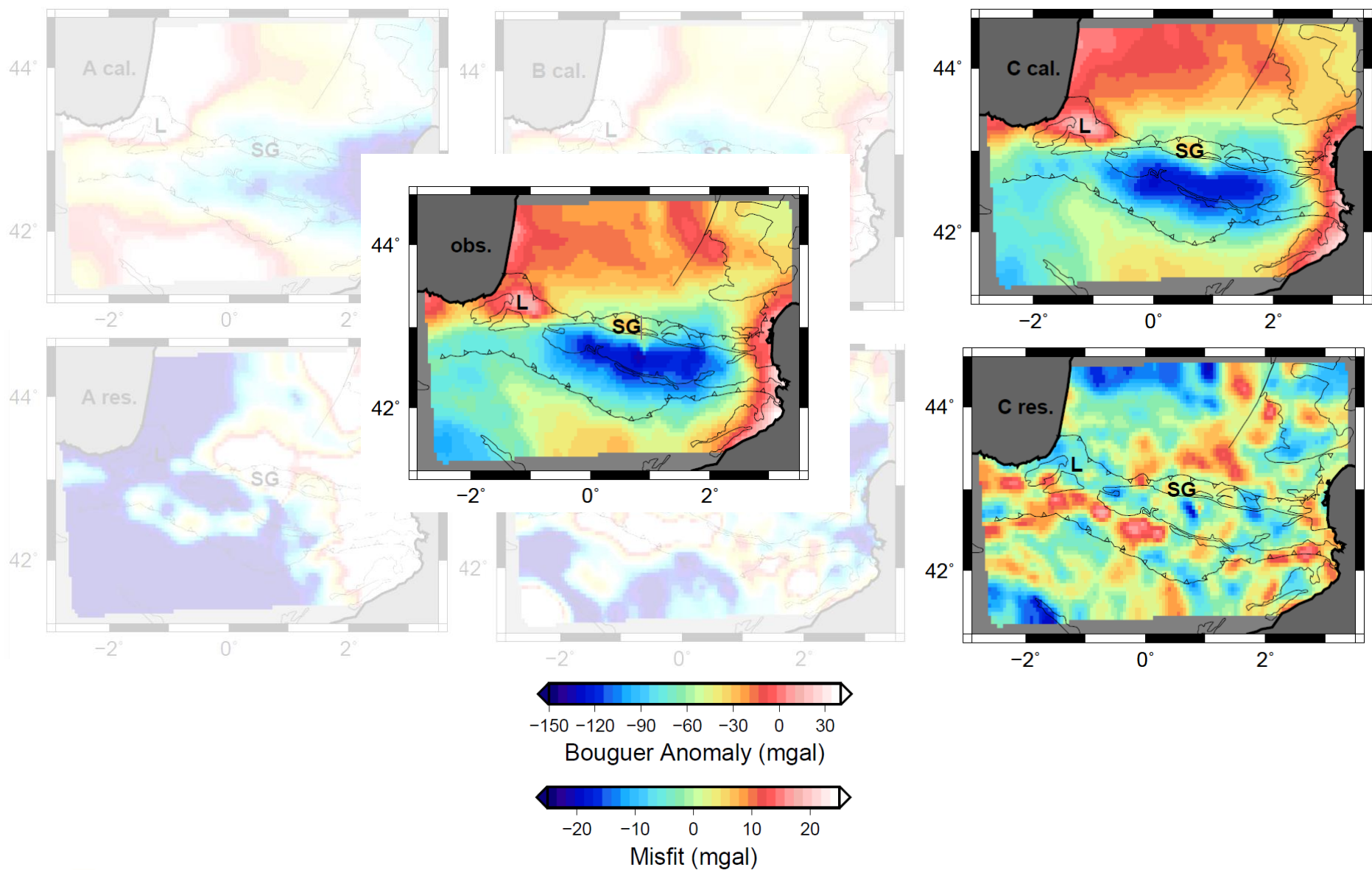




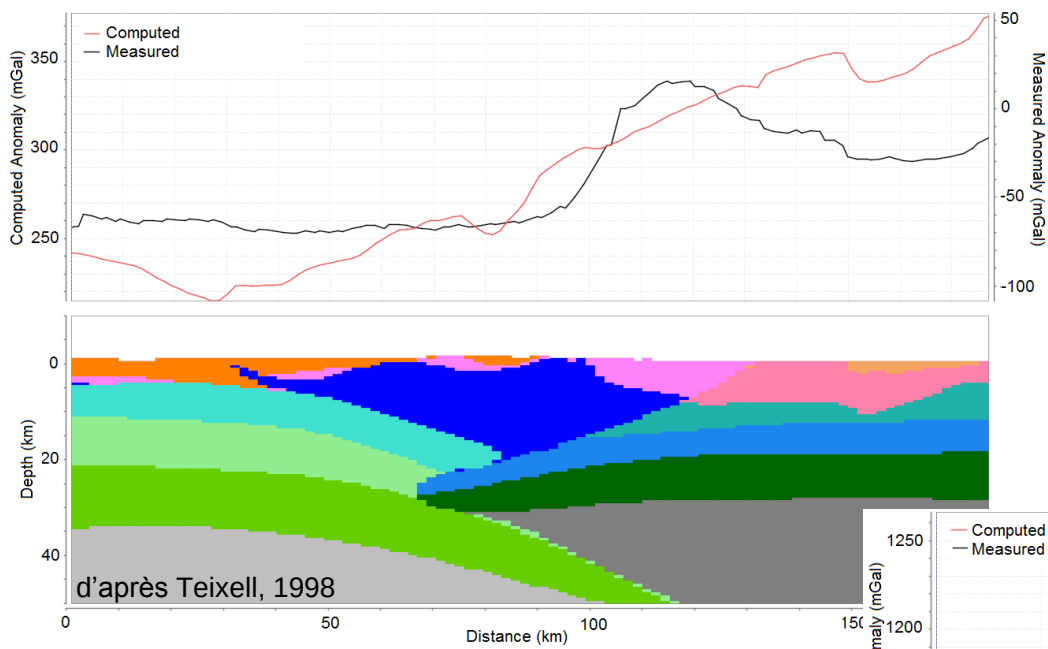
Résumé Modélisation



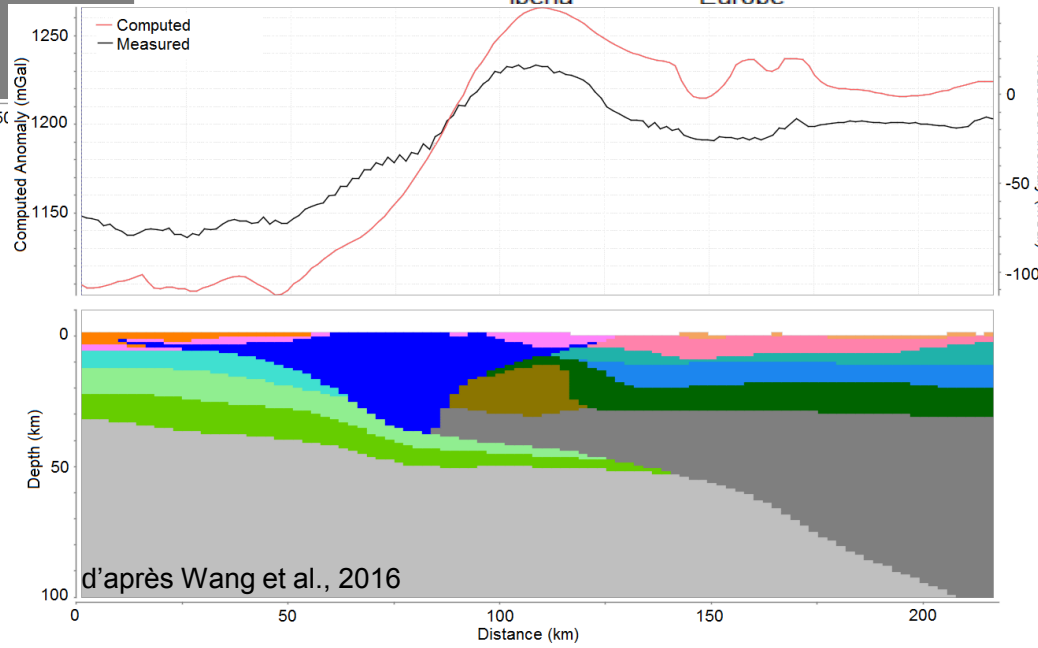
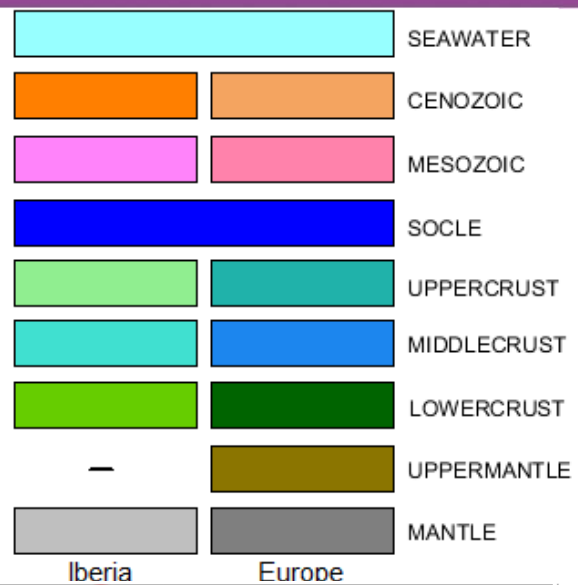
Résumé Modélisation

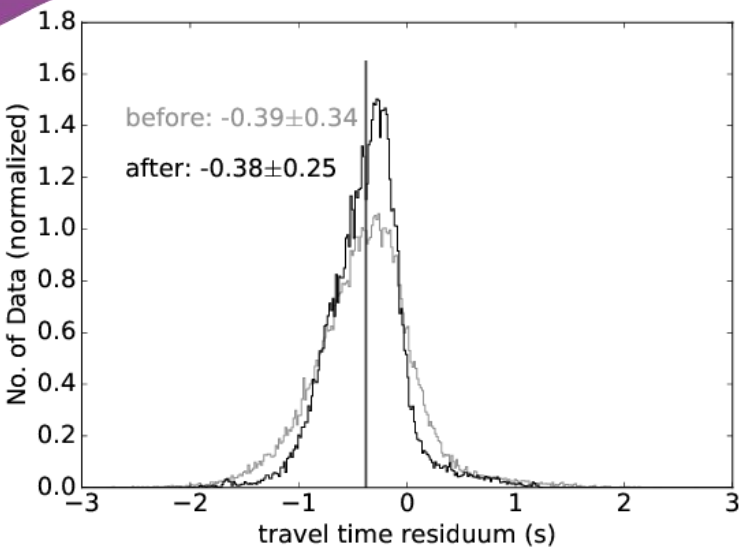


ECORS-Arzacq vs. PYROPE-West II



Bouguer obs.
Bouguer calc.





3D

Couche	vP (km/s)	vS (km/s)
Cenozoic	3,2	1,85
Mesozoic	5,2	3,05
Croûte sup.	5,6	3,23
Croûte moy.	6,1	3,52
Croûte inf.	6,4	3,70
Manteau sup.	7,5	4,34
Manteau	8,0	4,62

1D

z (km)	vP (km/s)	vS (km/s)
0	5,5	3,14
1	5,6	3,20
4	6,1	3,48
11	6,4	3,65
34	8,0	4,57

M. Sylvander

