

**The DANTE Model:
Progress and Plans
By
Leonardo Ghezzi**



DANTE
stands for

**Dynamic Analysis of the National
Tuscan Economy**

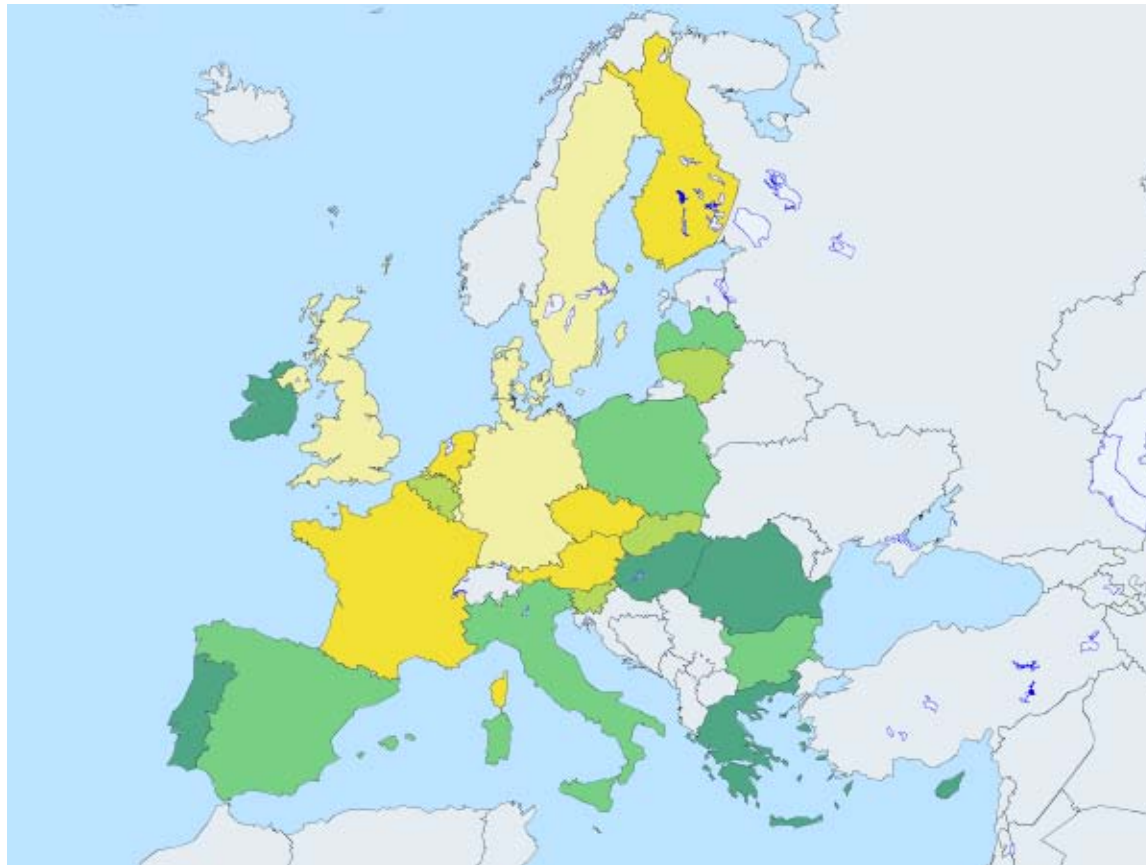
Why Do We need a Regional Model?

Tuscany is a region of Italy

**Italy is a Member State of the European
Union**

**European Economic Policy mostly refers
to Regions**








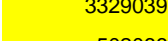





This is EU27



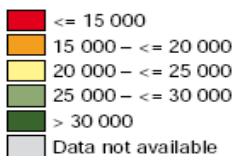
This is Italy



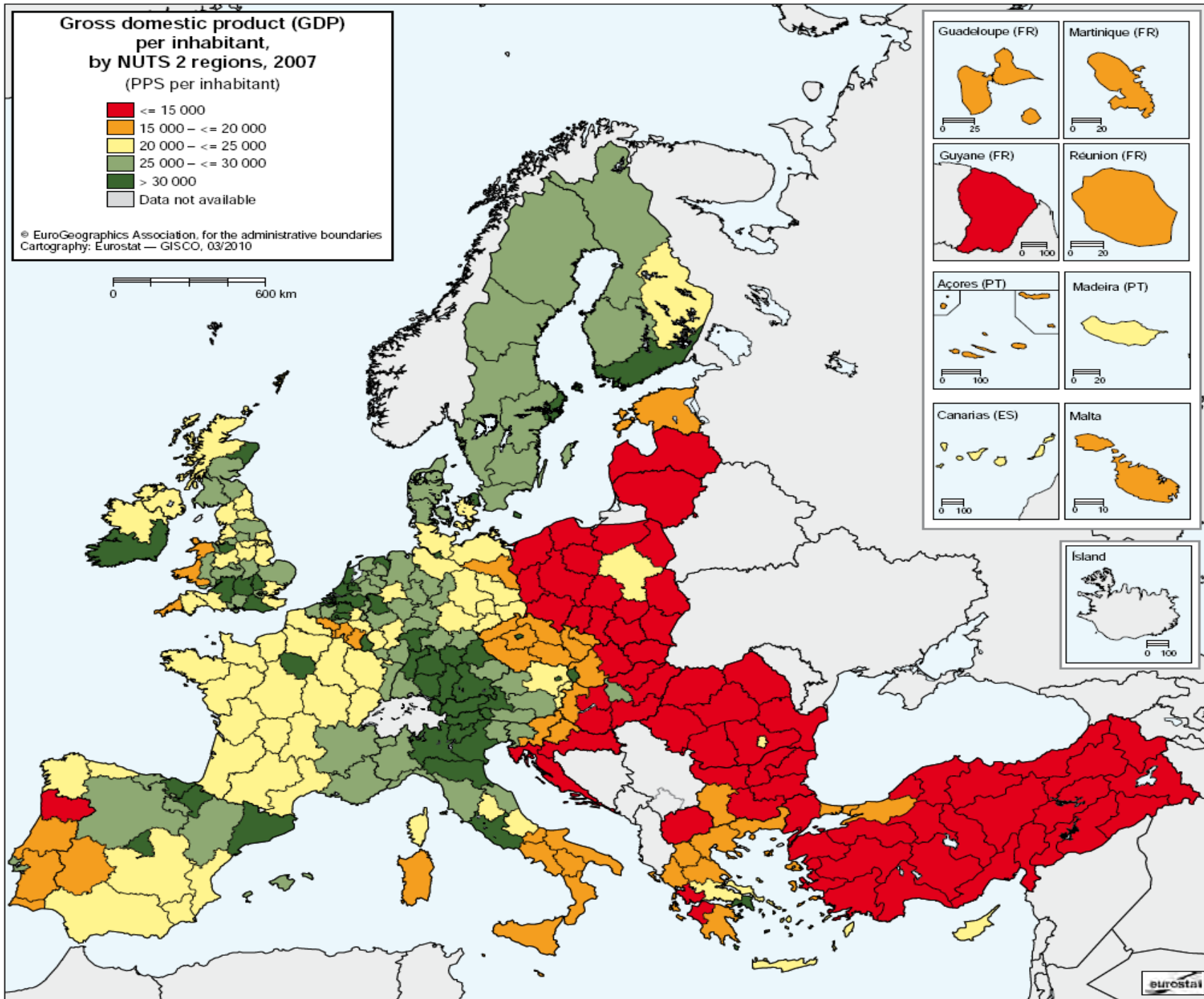
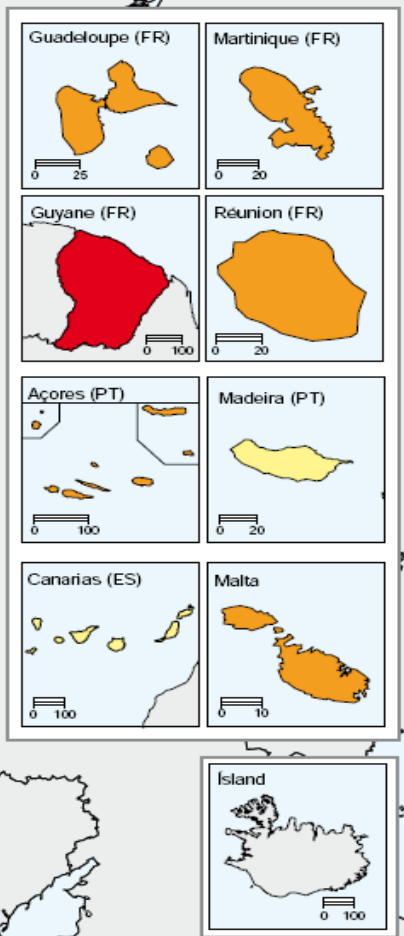
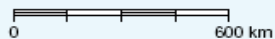
	Region	Population	%Italy
1	Lombardia	9.917.714	16,4%
2	Campania	5.834.056	9,6%
3	Lazio	5.728.688	9,4%
4	Sicilia	5.051.075	8,3%
5	Veneto	4.937.854	8,1%
6	Piemonte	4.457.335	7,4%
7	Emilia-Romagna	4.432.418	7,3%
8	Puglia	4.091.259	6,7%
9	Toscana	3.749.813	6,2%
10	Calabria	2.011.395	3,3%
11	Sardegna	1.675.411	2,8%
12	Liguria	1.616.788	2,7%
13	Marche	1.565.335	2,6%
14	Abruzzo	1.342.366	2,2%
15	Friuli-Venezia Giulia	1.235.808	2,0%
16	Trentino-Alto Adige	1.037.114	1,7%
17	Umbria	906.486	1,5%
18	Basilicata	587.517	1,0%
19	Molise	319.780	0,5%
20	Valle d'Aosta	128.230	0,2%
	Total	60.626.442	

		Tuscany	
		Lombardia	
1	Belgium	10839905	
2	Bulgaria	7563710	
3	Czech Republic	10506813	
4	Denmark	5529449	
5	Germany	81802257	
6	Estonia	1340127	
7	Ireland	4467854	
8	Greece	11305118	
9	Spain	45989016	
10	France	64716310	
11	Italy	60340328	
12	Cyprus	803147	
13	Latvia	2248374	
14	Lithuania	3329039	
15	Luxembourg	502066	
16	Hungary	10014324	
17	Malta	414372	
18	Netherlands	16574989	
19	Austria	8375290	
20	Poland	38167329	
21	Portugal	10637713	
22	Romania	21462186	
23	Slovenia	2046976	
24	Slovakia	5424925	
25	Finland	5351427	
26	Sweden	9340682	
27	United Kingdom	62026962	

**Gross domestic product (GDP)
per inhabitant,
by NUTS 2 regions, 2007**
(PPS per inhabitant)



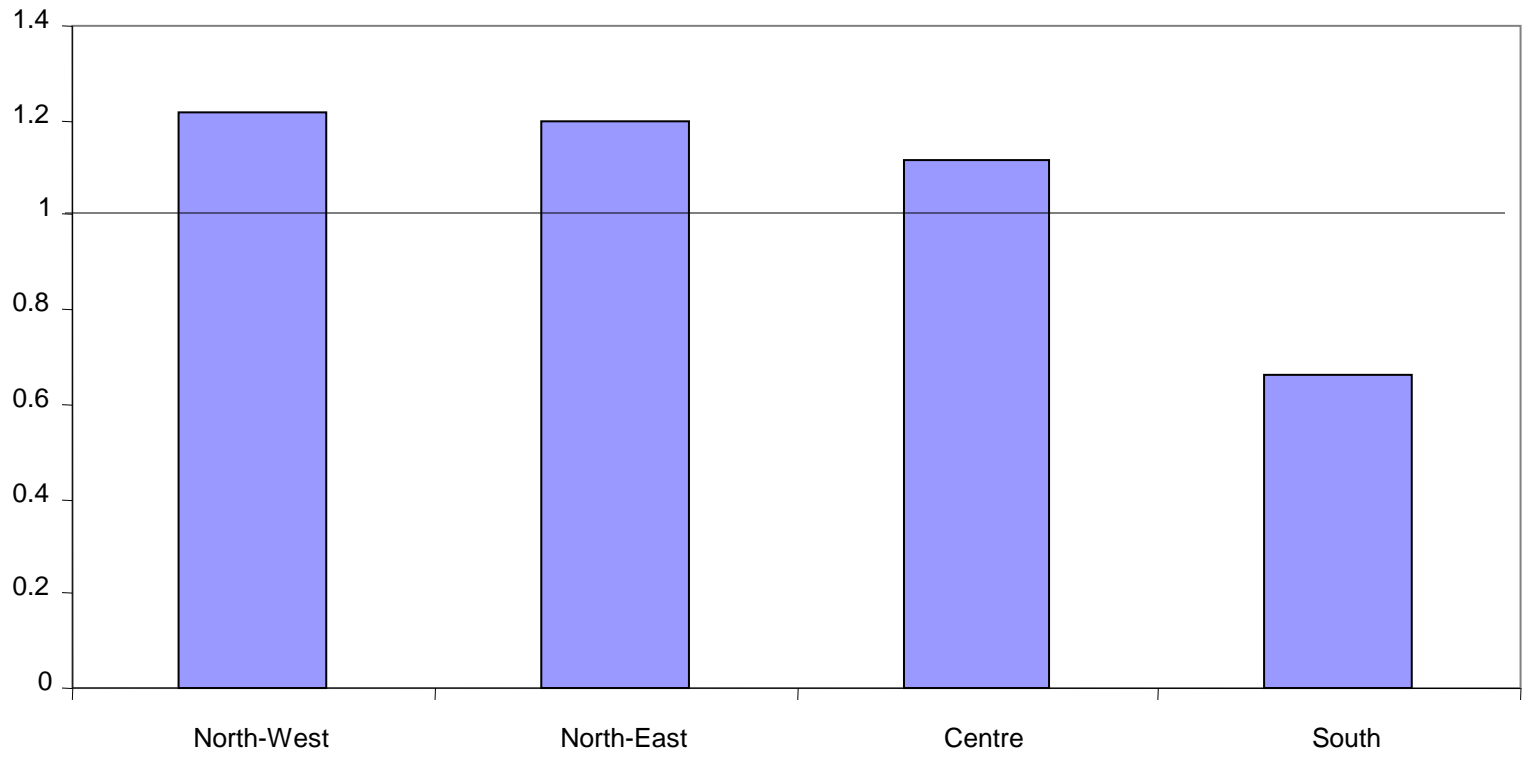
© EuroGeographics Association, for the administrative boundaries
Cartography: Eurostat — GISCO, 03/2010



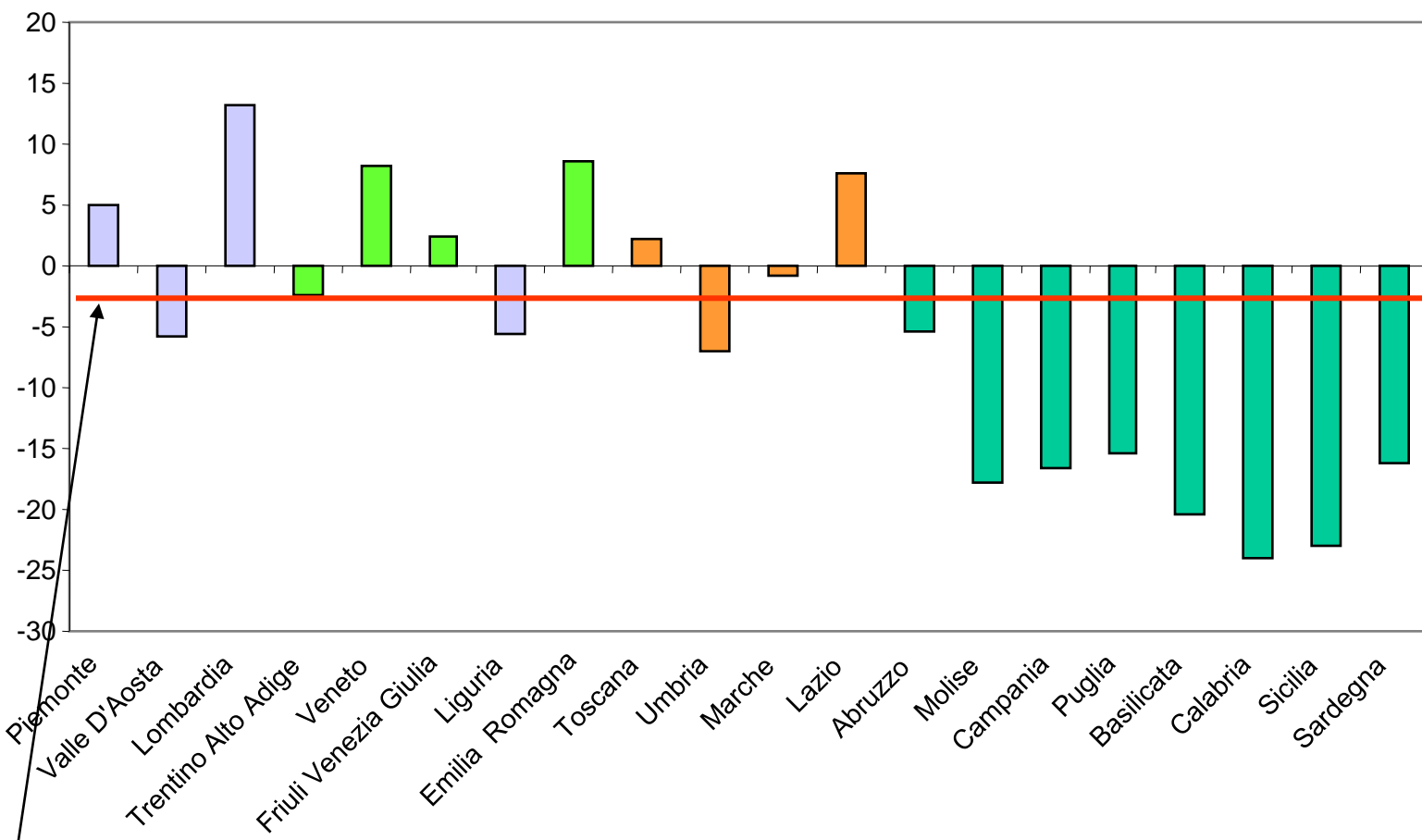
Why Do We need a Multiregional Model?

- Italy is characterized by a higher level of regional disparities
- A possible institutional revolution: **federalism**

Italian Regional disparities: a quick look of pc GDP



Possible effects of Federalism starting point: PSB ratio (net of Debt interests)



-3% PSBR: Eurozone deficit/PIL threshold

Two different phases:

**A research project
step by step:**

1st stage: to create the VAM databank

2nd stage: to complete the Real Side of the
Macromodel.

1st stage

We prepared our dataset and we imported data in the VAM bank and BNK bank (raw data):

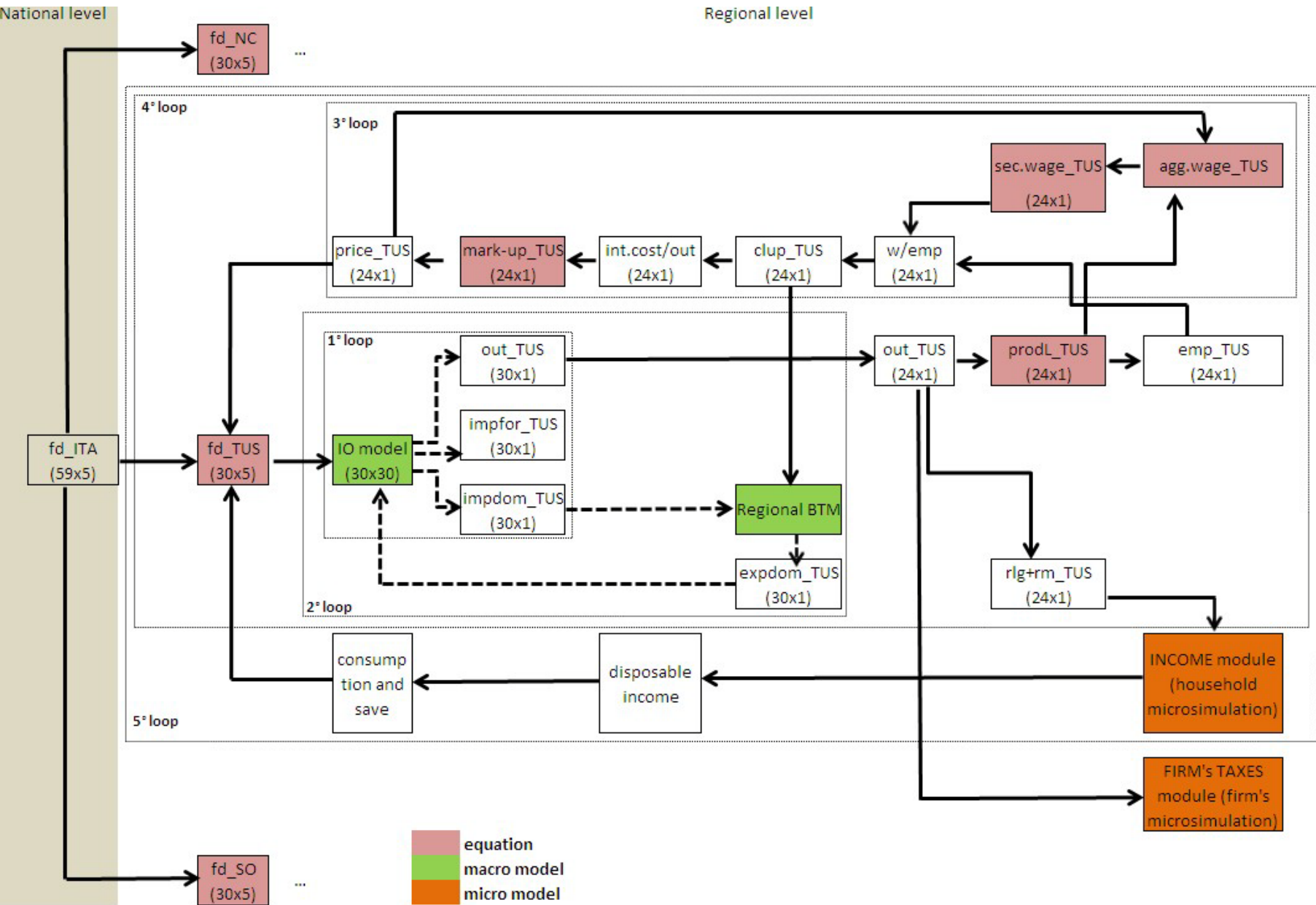
- about 950 variables in the VAM;
- All the National and Regional Account (both in real terms and nominal terms) in the BNK;
- 3 regions (North-Centre, South, Tuscany) and for each region we have Supply and Uses Tables
- 30 industries and 59 commodities in our Tables

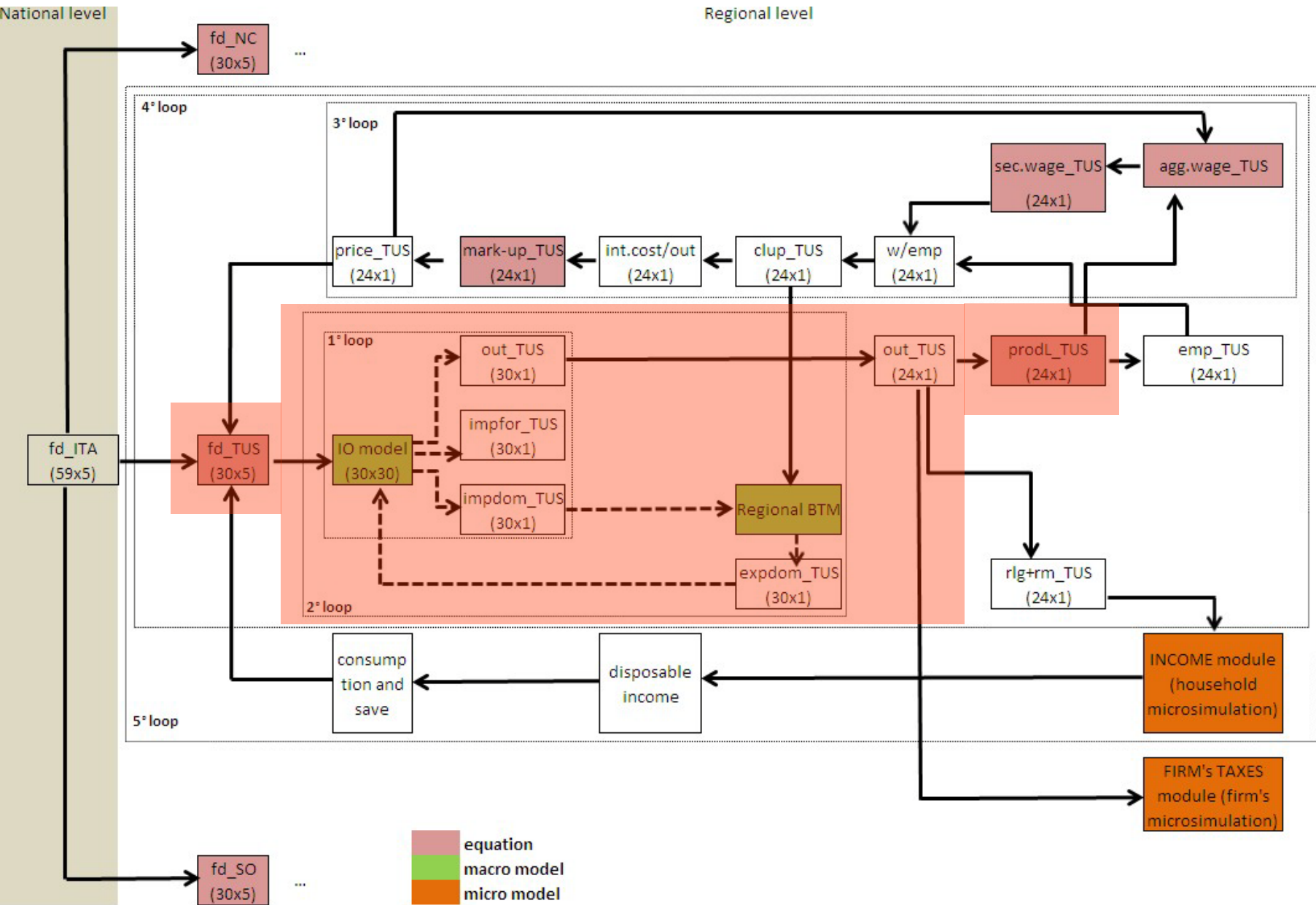
We created a specific ADD file (called INFERNO.ADD) to build the Symmetric I-O table (for the time being Leonardo prepare industry-by-industry but he promised to Clopper to build also a commodity-by-commodity table)

2nd stage

We started to write our personal MODEL.CPP file for DANTE. Inside the CPP file

- we changed the Seidel algorithm (to produce interregional imports and foreign imports ... and not only Total imports)
- We built an Interregional trade model (a bilateral model)
- we introduced not just one procedure of Convergence but many
- we estimate a set of Sectoral Productivity equations (Verdoorn equation) for each region
- we estimate a set of disaggregated Investment equation (machinery equipment) for each region





Next Steps:

Leonardo will finish the second stage (finishing the Real Side). In particular, In the following months Leonardo wants to work on the consumption equation using microdata in order to consider the impact of distribution of disposable income

This step will give us the chance to link together the Macro model with an Household Micro-simulation model.

Another target for the next year is to link DANTE with Firms Micro-simulation model (Corporate Income tax simulation)

...Thank you