

ΣΥΣΤΑΤΙΚΑ ΣΤΟΙΧΕΙΑ ΜΑΘΗΣΙΑΚΩΝ ΠΕΡΙΦΕΡΕΙΩΝ

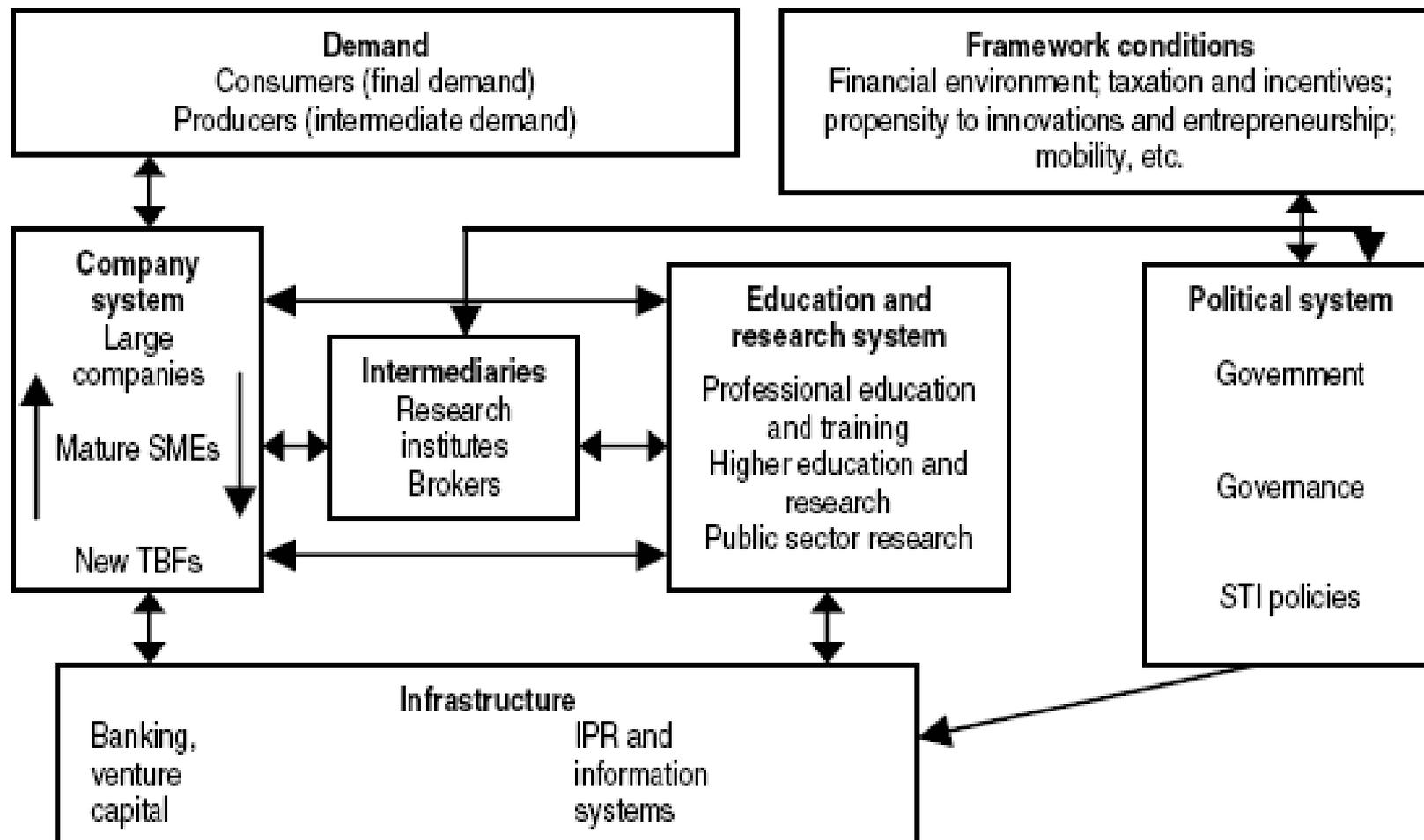
Περιφερειακά Συστήματα Καινοτομίας

Μάθημα 2Θ3 69
Μαθησιακές Περιφέρειες

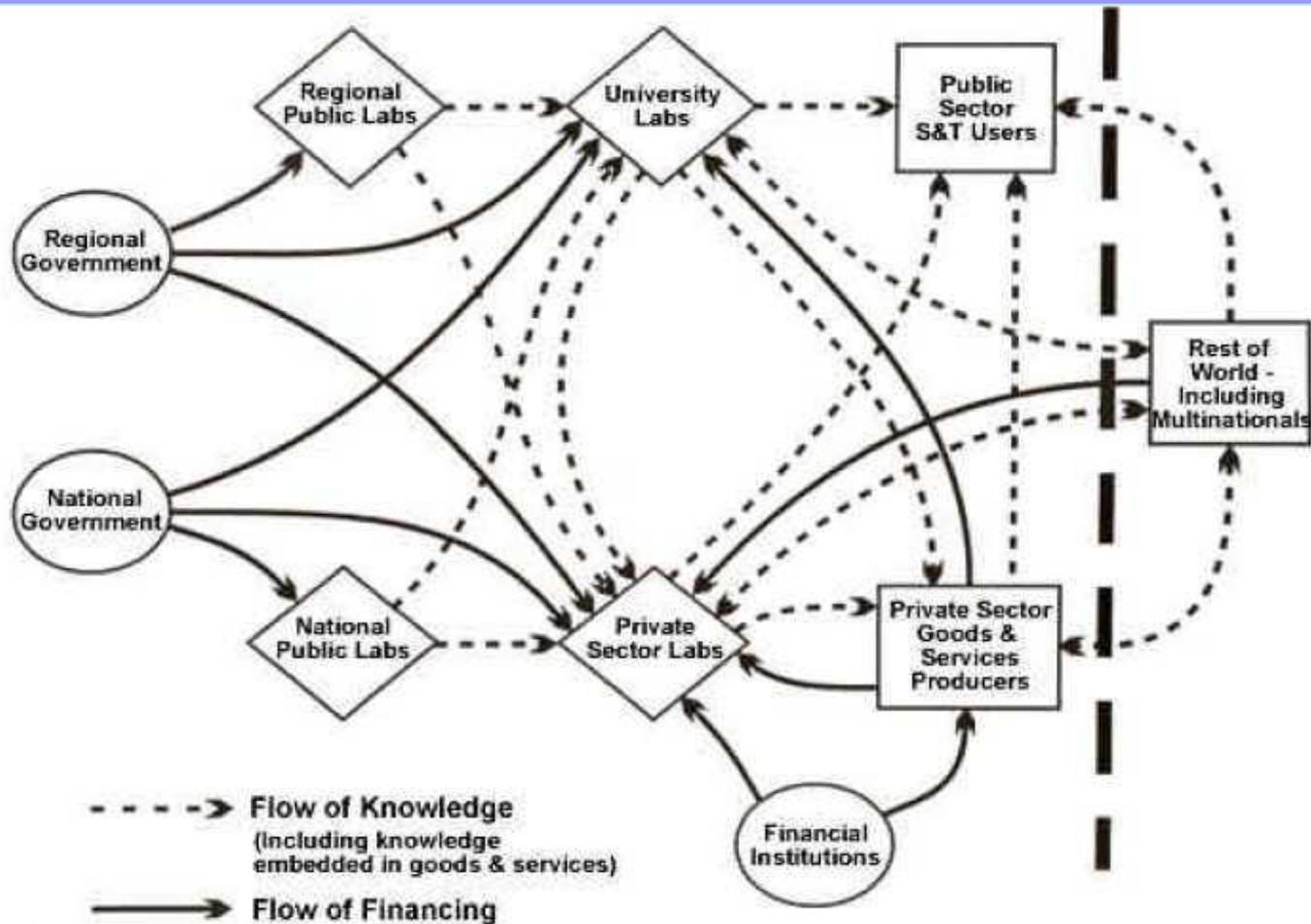
Περιφερειακό σύστημα καινοτομίας

Περιφερειακά συστήματα καινοτομίας στην ΕΕ

Συστήματα καινοτομίας: Εθνικό



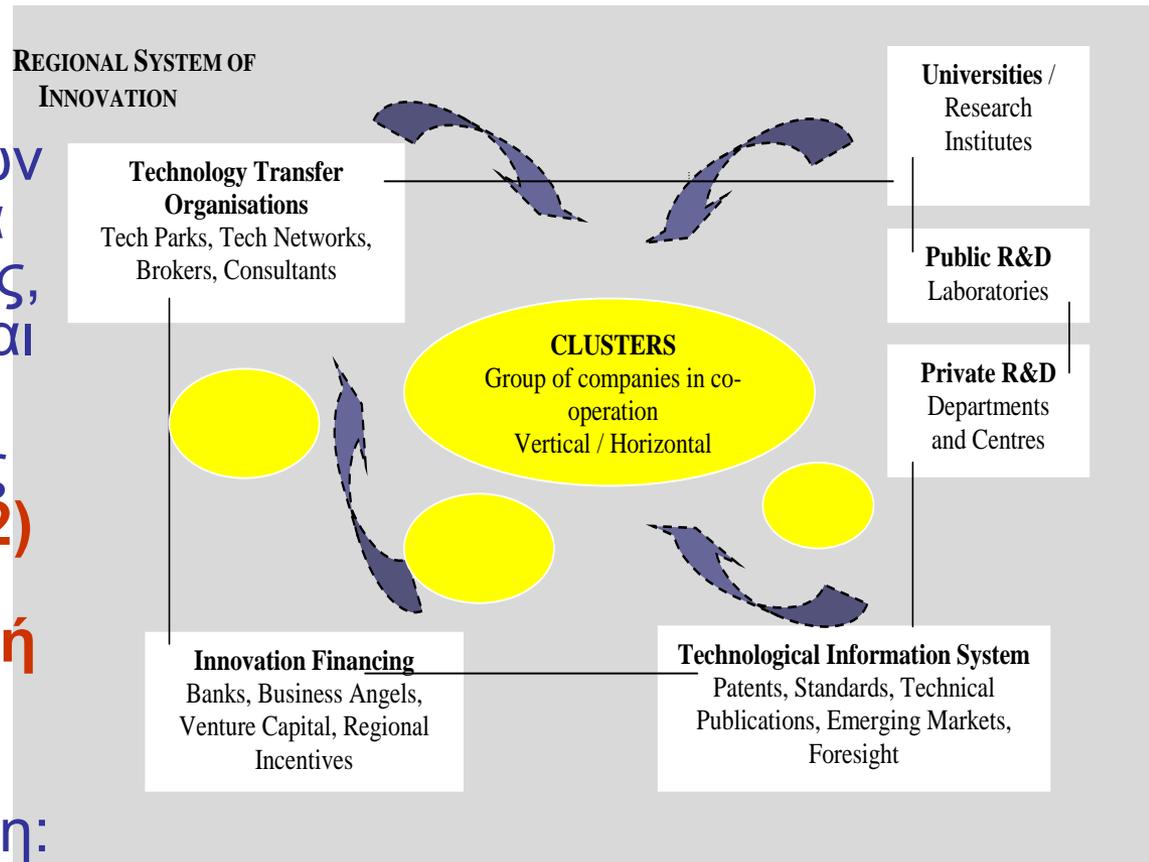
Συστήματα καινοτομίας: Σχέσεις



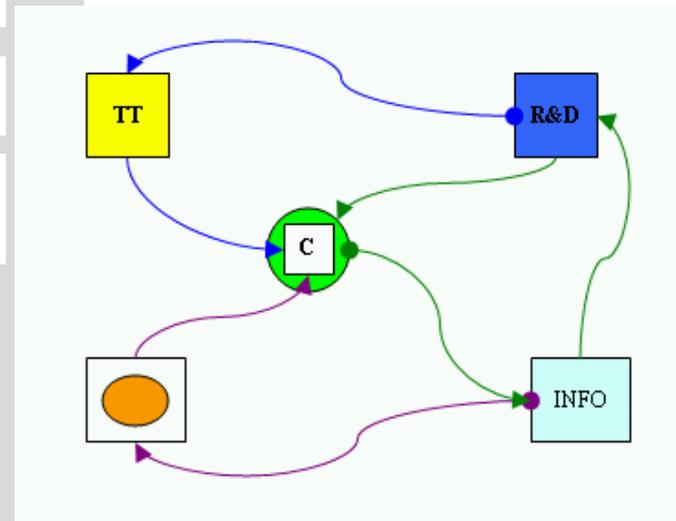
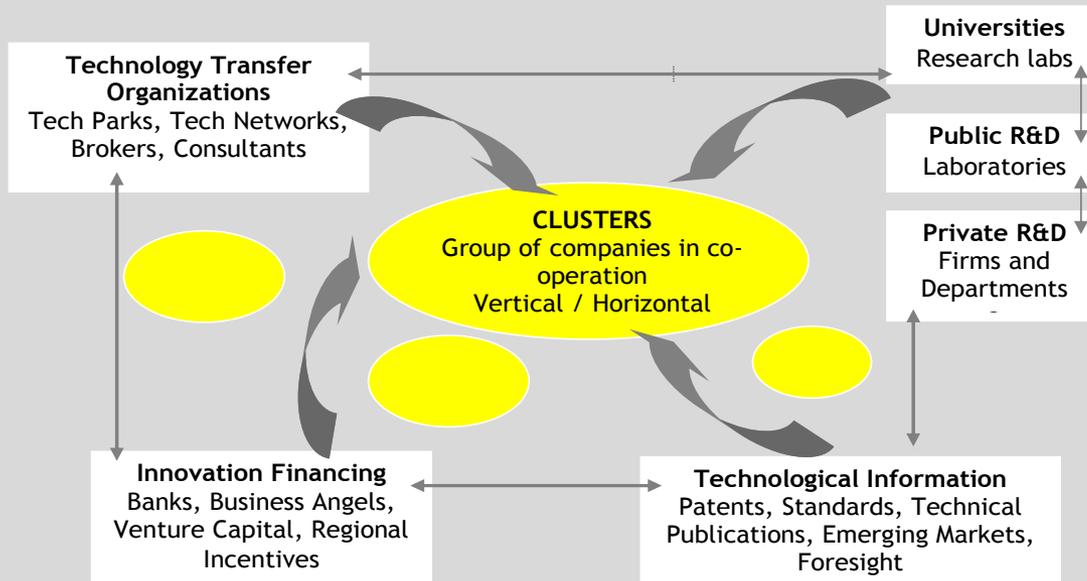
Chris Freeman: 'The rate of technological change in any country and the effectiveness of companies in world competition in international/ trade in goods and services, does not depend simply on the scale of their R&D... The national system of innovation may enable a country with limited resources... to make progress through appropriate combination of imported technology and local adaptation and improvement.'

Περιφερειακό σύστημα καινοτομίας

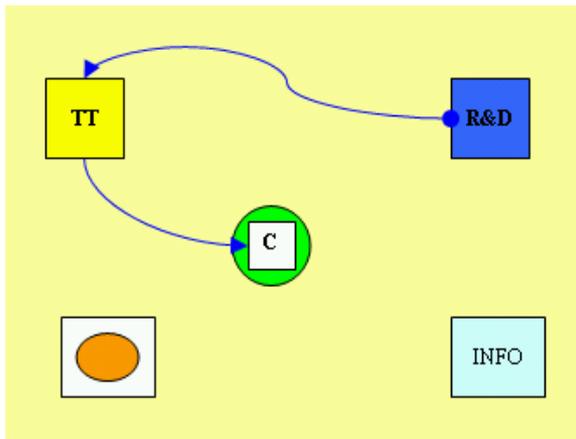
- ✦ Η καινοτομία είναι σύστημα
- ✦ Η περιφέρεια ως πρωτεύων τόπος δημιουργίας συστημάτων καινοτομίας. Περιφέρεια ως οργανισμός μάθησης, διαχείρισης, επιλογής και ανάπτυξης καινοτομίας
- ✦ Μηχανισμοί καινοτομίας
(1) θεσμικές σχέσεις (2) δίκτυα γνώσεων και τεχνολογίας, (3) τριπλή έλικα, πολιτικές στήριξης
- ✦ Δημόσια χρηματοδότηση: Άυλες δράσεις, ανθρώπινο δυναμικό, μεταφορά τεχνολογίας, έρευνα, πληροφόρηση



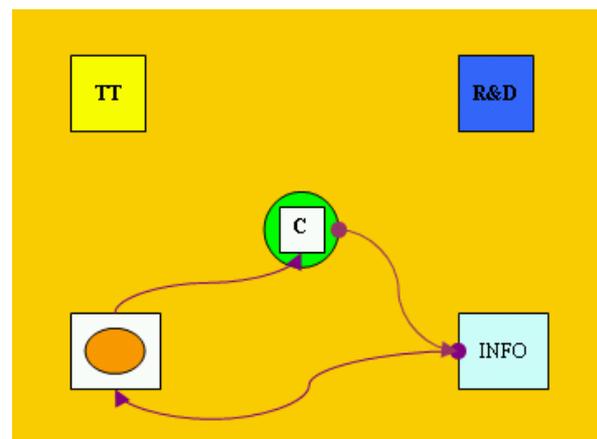
Περιφερειακό σύστημα καινοτομίας: Σχέσεις



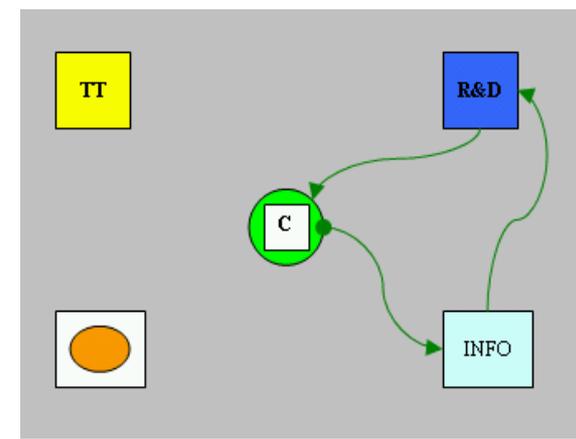
Αρχιτεκτονικές δικτύωσης



Μεταφορά τεχνολογίας

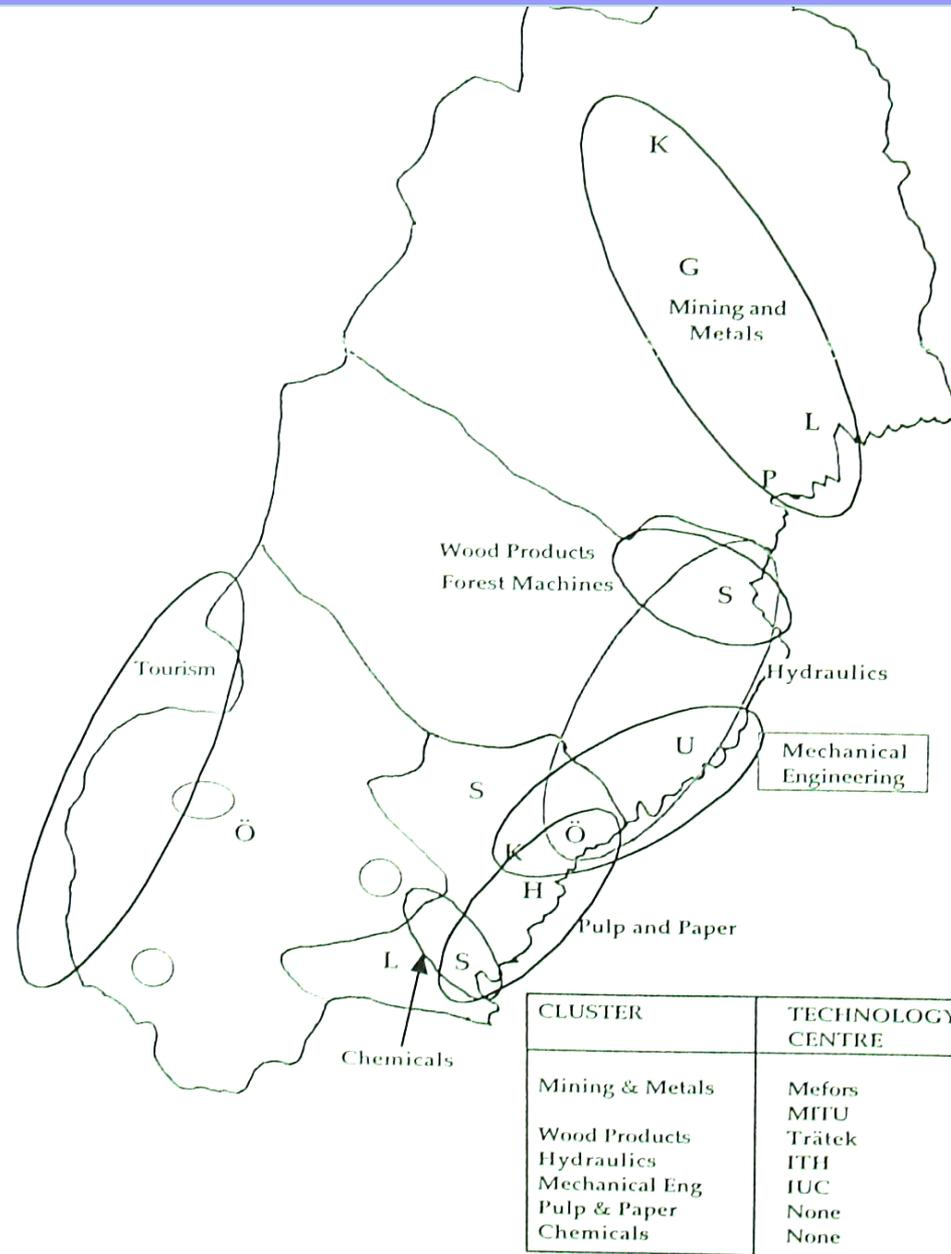


Reverse engineering

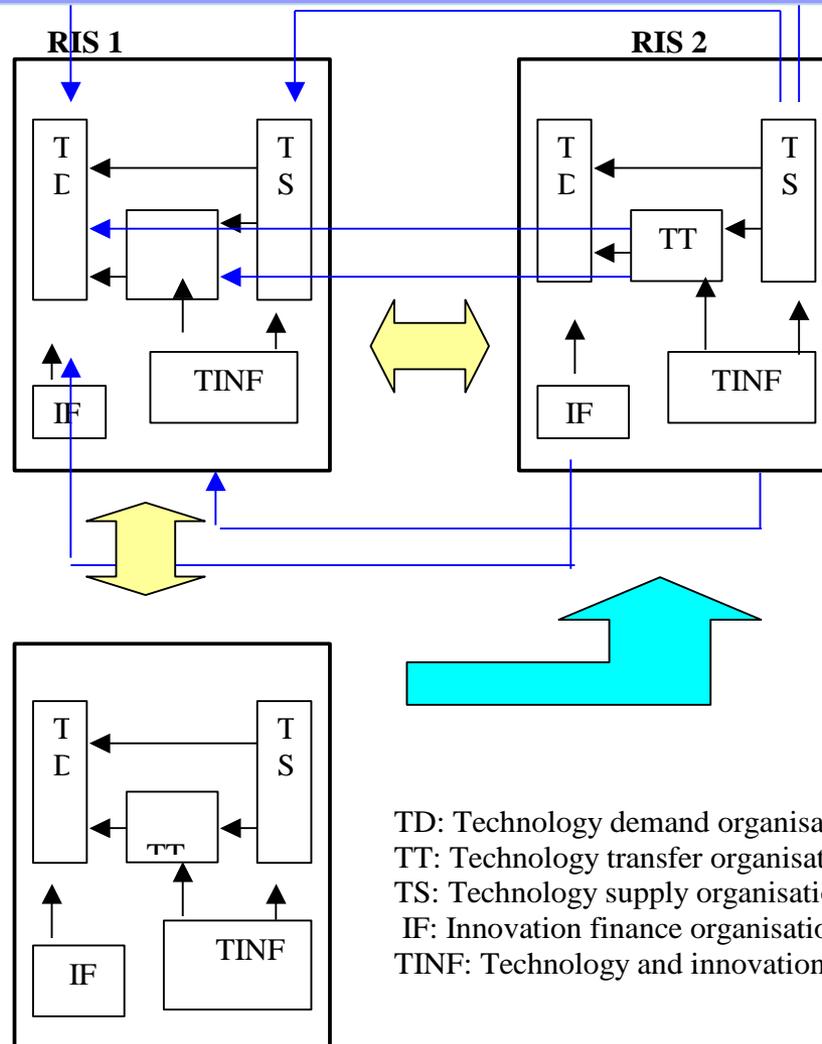


Αξιοποίηση E&A

Περιφερειακό σύστημα καινοτομίας Norrland



Περιφερειακό σύστημα καινοτομίας: Διαπεριφερειακές σχέσεις



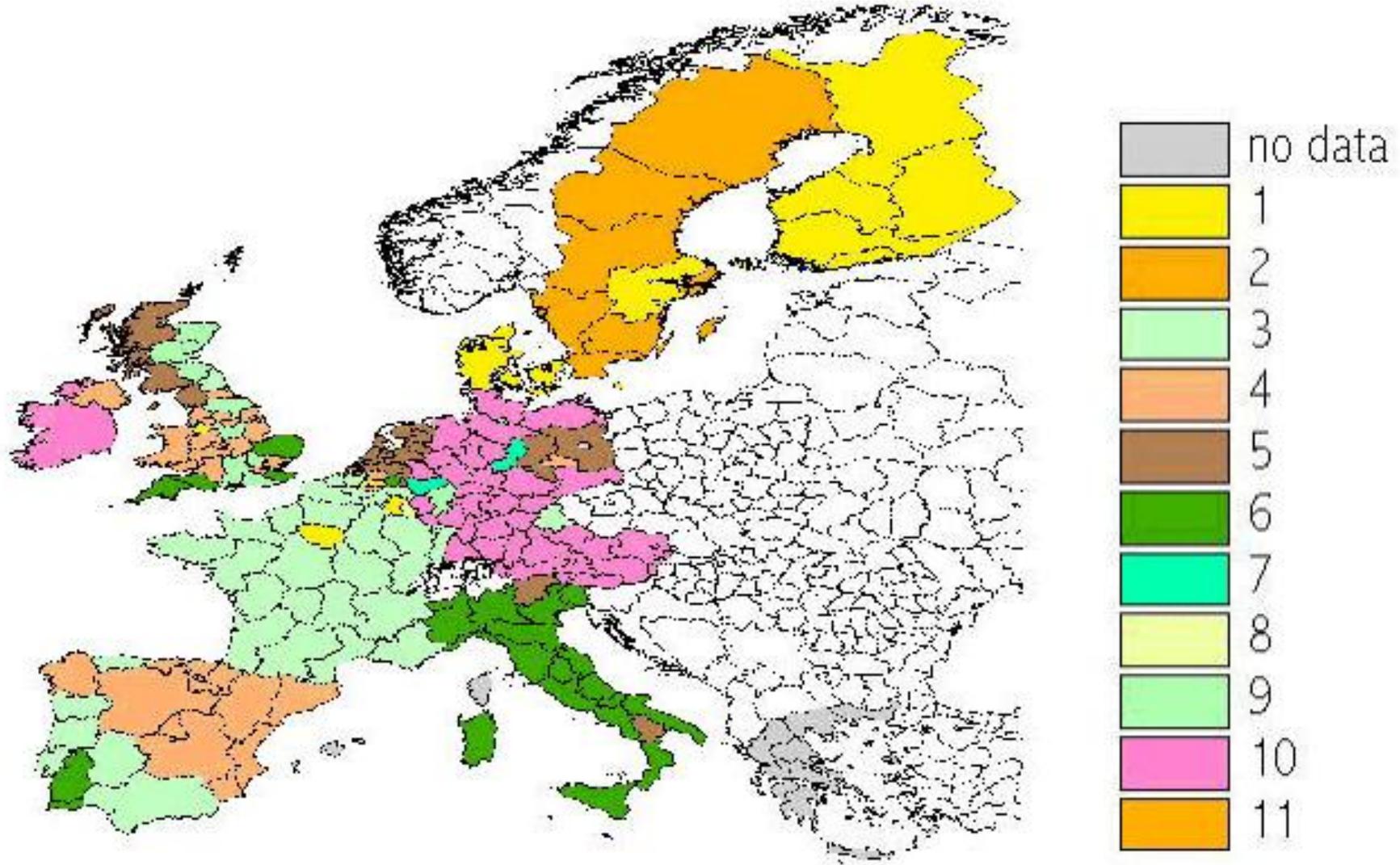
TD: Technology demand organisations
TT: Technology transfer organisations
TS: Technology supply organisations
IF: Innovation finance organisations
TINF: Technology and innovation infrastructure

Περιφερειακό σύστημα καινοτομίας: Τομεακό

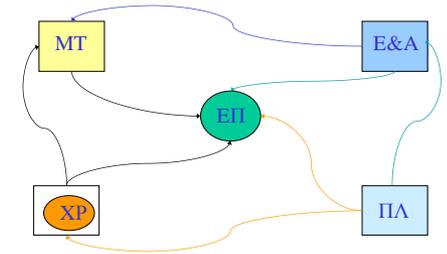
ΤΕΧΝΟΛΟΓΙΕΣ	ΔΙΚΤΥΑ ΣΥΝΕΡΓΑΣΙΑ	ΠΑΡΑΓΩΓΗ	ΝΕΑ ΠΡΟΪΟΝΤΑ	ΑΓΟΡΕΣ	
Έρευνα: Εργαστήρια πληροφορικής	Ανάπτυξη νέου προϊόντος σε συνεργασία		Τηλεπικοινωνίες Ασύρματα δίκτυα	Επιχειρήσεις ΤΠΕ ΚΜ και Ελλάδος	
Έρευνα: Εργαστήρια εφαρμογών πληροφορικής	Χρήση αποτελεσμάτων έρευνας Εργαστηριακές μετρήσεις	Π Ρ Ο Μ Η Θ Ε Υ Τ Ε Σ	Ευρωζωνικά δίκτυα Υπηρεσίες web	Επιχειρήσεις άλλων κλάδων ΚΜ και Ελλάδος	
Μεταφορά τεχνολογίας ΤΠΘ, ΚΕΤΑ, Γρα Διαμεσολ.	Συλλογική παρακολούθηση αγορών και τεχνολογιών		Υφιστάμενες επιχειρήσεις ΤΠΕ Κ.Μακεδονίας	Τεχνολογίες λογισμικού Λογισμικό γνώσης	Επιχειρήσεις ξωττικού
Θερμοκοιτίδες ΕΔΑΠ, I4G, Themmi	Τεχνολογικές πλατφόρμες Υπηρεσίες διαμεσολάβησης		Spin-off ΤΠΕ Κ.Μακεδονίας - Γέννηση	Βιοπληροφορική Ιατρική πληροφορική	Δημόσια διοίκηση / αυτοδιοίκηση
Φορείς Χρηματοδότησης	Καράλαπο κινδύνου		Πολυεθνικές ΤΠΕ Κ.Μακεδονίας -Προσέλκυση	Broadband, multimedia	Πληθυσμός ΚΜ / Ελλάδος

Περιφερειακά συστήματα καινοτομίας στην ΕΕ

Περιφερειακά συστήματα καινοτομίας στην ΕΕ



SYSTEM 2 includes most of Sweden (6 small, export-oriented regions, with a highly educated workforce), and effectively represents what we could call “**the Swedish model: innovation is for academics**”.

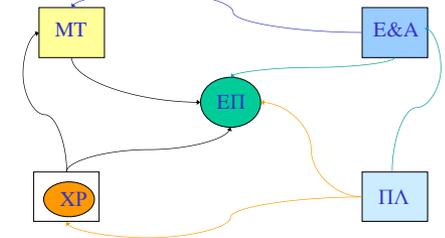


● **The amount of R&D performed by non-profit research institutes is impressive** (more than 10 times the EU regional average) and is the single variable that most characterises this cluster (R&D expenditure by the government - in opposition - is about half as high, in proportion of GDP, as the EU regional average, and direct public support to the firms is not high).

● **This knowledge is hardly transferred to the firms:** public sources of information are not relevant and public institutions do not enter into co-operation agreements with the private sector. If private expenditure by the firms is roughly twice the EU regional average, R&D personnel is much lower. Firms engage in co-operation agreements with other enterprises up and down their value chain. But innovation output is not particularly high.

● “The Swedish model” is thus a model of **high public R&D expenditure** (via research institutes), that are not transferred efficiently to the innovative performance of the firms. It seems that the main culprit has to be found in the transfer mechanism, that appears particularly poor.

SYSTEM 9 (“private and public R&D, good information flows”) includes two German regions (Hamburg and Koblenz) plus eight British regions, on northsouth axes, France and Spain regions.



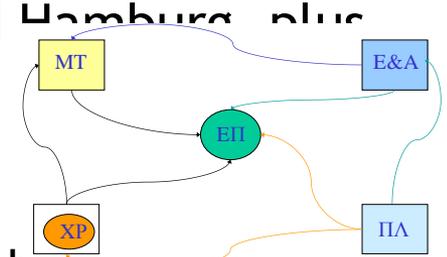
STATE LED MODEL

● **They are characterised by a good level of human capital** (25% of the male 25-59 population has a higher education degree), low youth unemployment, small export, small R&D personnel (**but R&D expenditure in line with the EU regional average**), and better than average innovation diffusion (the share of innovators on the total number of firms is almost 50% higher, and the share of patent applicants is almost double, than the EU regional average).

● **Firms particularly focus on the compliance of standards and regulations and cost reduction** as their main objectives for innovation activities. The flow of information among innovation players is good (firms use more than average other firms and research institutions as a source of information for their innovation activities), but cooperation is quite low. Firms strongly complain the lack of adequate sources of financing. This turns out to be mainly a British problem.

● Overall, this innovation system looks more **government-pushed**, while the one of cluster 10 looks more *cooperation-driven*.

SYSTEM 10 (“private R&D, good transfer and exchange mechanisms”) includes Austria, most of Germany (except Brandenburg and Sachsen-Anhalt in Eastern Germany, Oberpfalz in Bayern, Koblenz, Koln and Hamburg plus Braunschweig) and Ireland. **COOPERATION-DRIVEN MODEL**

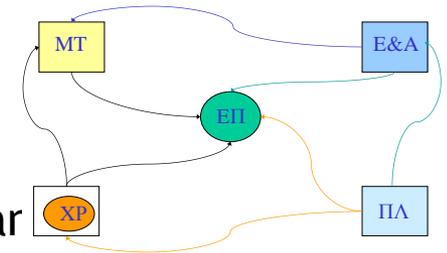


● This cluster is characterised by a high diffusion of innovation activities: the share of product and process innovators is very high (50% higher than the EU regional average²), as the number of both patent applicants (+50%) and patent applications (+100%). Innovation is particularly driven by cost reduction purposes.

● Firms located in the 38 regions of this cluster are on average bigger than the EU regional mean for the manufacturing sector, but they export much less. Their R&D effort is quite in line with the EU regional average, while public R&D effort is lower (both by the government and by other research institutes). On the other hand, firms use all possible sources of information for their innovation activities, both public and private, and cooperation with Universities and other higher education or research institutes is much more common (2.5 times more frequent, but with a high variance in the cluster).

● This cluster looks like a model of innovation diffusion. Anyway, it points to the importance of co-operation between private firms and research institutions, in which firms are not simply passive beneficiaries, but pro-active players who undertake most of the R&D themselves.

SYSTEM 5 (“private R&D, public support, poor transfer and exchange mechanisms”) includes 19 regions: the Netherlands (except Flevoland), the Italian regions of Basilicata and Trentino-Alto Adige, three eastern German regions (Brandenburg, Magdeburg and Halle) and three north-eastern British regions (Cumbria and around Glasgow).



PERIPHERAL MODEL

These are fairly small regions, with low youth unemployment and few firms with a very low export propensity. **As opposite to the Swedish model, firms in this cluster spend a low amount on R&D** (more than 40% less than the EU regional average) even if they have more R&D personnel than the average. Innovation diffusion is slightly higher than in other clusters, even if patenting propensity is not high (but firms are good in bringing new products to the market).

The transmission mechanism is similar to the Swedish one: firms co-operate particularly with business partners, and very little with public partners. Apparently in contradiction, firms do not use business relationship much in order to gain information for their innovation activities. So, in this cluster we have little but highly subsidised private expenditure on R&D activities, and the development of innovations is mainly left to the firms themselves.

As compared to the Swedish model, where the main innovative efforts were undertaken by universities and research institutes but the results were not transferred to the firms, **this model seems to work better** for what concerns the diffusion of innovative firms.