ANTICIPATING RESTRUCTURING

National Workshop, Tallinn 20 – 21 September 2011

PARTNERSHIP FOR ANTICIPATING RESTRUCTURING: MUTUAL LEARNING FINLAND & BALTIC COUNTRIES

Finnish model for Anticipating Change and Restructuring: key aspects and challenges Robert Arnkil

Arnkil Dialogues

and Tampere University Work Research Centre





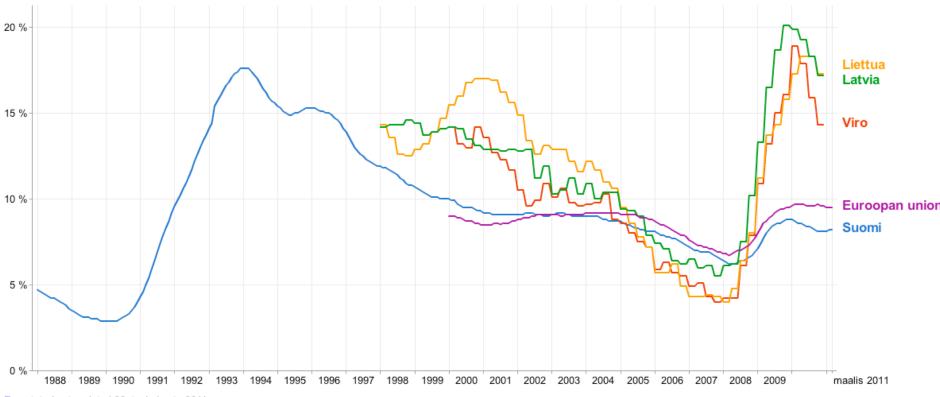


Context I: success but precarious

- Finland has been successful in the global market, and as a society ranking high in quality of life, education, democracy, transparency, trust and low corruption.
- But Finland is also vulnerable because of high dependency on exports and the global market, with a small domestic market, a limited workforce resource, rather limited natural resources and one of the most aged populations in the world.

Unemployment in Finland, Estonia, Latvia, Lithuania and EU

Unemployment rate



Eurostat - Last updated 23. toukokuuta 2011

Context II: good anticipation needed

- To survive Finland needs to take the "high road" of development as a society and labour markets. Social resources need to be mobilised and upgraded effectively. This calls for efficiency, effectiveness and sustainability in taking care of people and the labour force, matching demand and supply and developing skills and innovation capability.
- For this good knowledge about the changes in the labour market, economy and society are needed. Good **methods** to produce reliable data for anticipating changes, good **networking in producing and interpreting data**, and good cooperation in putting the findings into practice, are needed.

Anticipation "system" in Finland I: rich and participative

- In terms of forecasting and anticipating change in the labour market Finland has a rich set of anticipation methods and an abundance of anticipation activities on national/central, regional and sub-regional levels.
- All key players have a role in this: the government and parliament, ministries, the social partners, regional actors, companies and the scientific community.

Anticipation "system" in Finland II: Open, loose and based on trust

- This rich set of anticipation methods, activities and actors form a broad and loose cooperation system in Finland.
- It is based on openness, broad and comprehensive participation based on trust, informal networking and collaboration
- so Finland has a broad interpretation of 'social partnership' in anticipating change.

Anticipation "system" in Finland III: Autonomous and mostly voluntary

- Although cooperating and networking actively, the different actors have a high degree of autonomy and initiative in producing and interpreting data concerning societal change.
- There is no direct legislation requiring forecasting and anticipation, but many legal frameworks, like legislation on cooperation on workplace level concerning changes in workplaces, provide a necessary basic backdrop for cooperation and trust.

Anticipation "system" in Finland IV: long tradition of social dialogue

- Many institutional and corporate practices, traditions and experiences provide a favourable backdrop for an open, informal and trustful 'system' of anticipation in Finland.
- The labour force is about **70% unionised** on the average, and Finland has a long tradition of tripartite cooperation,
- the long tradition of collective wage agreements has been discontinued, and a new era, calling for re-invention of tripartite collaboration, is at hand.

Social dialogue

- Strategic-long-term: Finland has a long tradition of social dialogue and there has been a strong tendency to seek consensus on major societal issues like innovation, wages, pensions and education, well-being at work, life-long-learning, gender equality etc.
- Short-to-mid-term: Law of cooperation (YT-neuvottelu in Finnish). Negotiations between employers and employees concerning major changes in work and production, forming subsidiaries, outsourcing lay-offs, redundancies. Mandatory for enterprises with over 20 employees.
- Short-to-mid-term "Change Security". Early "warning" and cooperation between employers, employees, unions, public officials (particularly PES) and others. Early cooperation between the firm, employees, trade unions, staff, employment and education officials and other local, regional and national players. Individual action plans and support to employees.

Anticipation "system" in Finland V: Public administration active

- Public administration has an important role in producing the basic information for forecasts and anticipations.
- Nevertheless, all major societal issues are prepared in tripartite and/or social partner debates and negotiations.
- Ministries and regional levels have boards with social partner representation, and social partners participate in various ways in the anticipation processes on the central, regional and local levels.

Finnish "system" of anticipation VI: Roles clarified recently

- In the recent years there has been an attempt to further clarify the methods and roles used in national anticipation ("Principal – agent")
- Data preparation phase and method development has been more and more clearly left for independent scientific institutions
- Role of various stakeholders, social partners and politicians has been in debating, interpreting and implementing the data, findings and scenarios produced by experts.

Finnish anticipation system VII: Recent themes

- Foresight, anticipation and restructuring activities have focused on some critical themes in the last decade:
- Education and training needs, the demand for labour, changes in qualifications and the competences of the labour force, changes in different business fields and clusters and business life in general, technology foresight, demographic structures, globalisation impacts and innovation systems.

Transferability of the Finnish "system"

- Open, informal systems of networking, based on trust and experience, which characterise the Finnish anticipation activities, are not easily transferable.
- Transferring calls for an active learning process for all stakeholders, and adaption to local circumstances and opportunities. (And plenty of time..)
- Transferability falls probably along a kind of "continuum" from more easily transferable "technical" aspects of measures to complex practices deeply imbedded in national structures, cultures and pathdependencies.

Actors and roles: central level

- Futures Committee of the parliament, and the Prime Ministers office
- Ministry of Finance MOF), Ministry of Employment and the Economy (MEE), Ministry of Education and Culture (MEC) and Ministry of Health and Social Affairs (MHSA), forming the PATKET-VATTAGE –process, which consists of a researchbased long-term quantitative calculation of changes in the Finnish economy
- Through its statistics and analytical activities, MEE produces a lot of information concerning the labour markets and employment,
- Statistics of Finland produces basic information on society, labour markets etc.
- Social partners participate in various ways in forecasting and anticipation, like in PATKET as commentators. The unions and employers are also involved in forecasting through the boards of ministries and in the regions
- The unions do some research activities and projects, which have connections to forecasting, but not anticipation data on a regular basis. The Confederation of Finnish industries produces especially qualitative forecasts and scenarios.

Activities and roles: regional

- The regional offices of state administration, which are steered by ministries (15 state regional offices called Centres for Economic Development, Transport and the Environment, ELY for short in Finnish). Short-to-mid-term anticipation.
- **Regional councils**, which are joint-municipality institutions. They make regional plans and strategies, especially concerning land-use, and also participate in forecasting and anticipation in various ways, as sources of information, as commentators and advisors.
- Educational institutions, like universities and polytechnics participate in various ways to forecasting and anticipation through research and projects
- The social partners participate in an advisory role (boards) to the state regional offices, and also in the collection and interpretation of data and findings on local and regional levels

Activities and roles: Local

- Municipalities (336) (Responsible for basic health, education, social affairs, culture, local infrastructure etc.)Anticipation via regional councils, various educational institutions and business development agencies, and also the Association of Finnish Local and Regional Authorities
- Local unions and entrepreneurs/companies participate in the forecasting and anticipation processes through regional and local workshops, forums, Delphi panels and other ways of commenting on administrative findings and forecasts. The Employment and Economy Offices gather regularly information from companies.
- Within the companies themselves, the forecasting and anticipation varies. A rough estimate is that about half of companies engage in some kind of forecasting and anticipation themselves

Examples

Forecasting and anticipation in Finland, examples

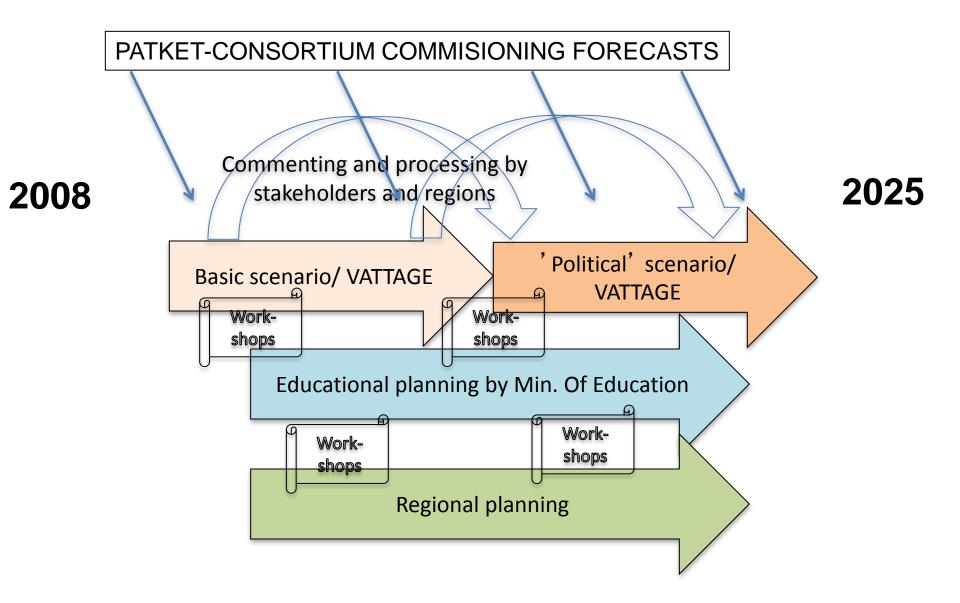
Institution	Forecast method	Key characteristic and outputs
PATKET-VATTAGE –process: a Consortium of Ministries and the Government Institute for Economic Research (VATT)	Applied General Equilibrium Model (AGE)	Quantitative model for long-term forecasts of the development of the economy and labour markets.
Foresights and restructuring activities of the Ministry of Employment and the Economies (MEE), (chairs the PATKET-process)	Various qualitative and quantitative methods and forecasts done by agencies under MEE (see TEKES below)	Long term forecasting on central level, mid-to short on regional
Ministry of Education using VOSE and MITENNA	Various qualitative forecast methods of competences and skills needs	Short to long term forecasting of educational needs and combining to quantitative forecasts of the national economy and labour markets
Surveys on the Need for Workforce and Training (TKTT Foresight Model and Occupational Barometer	Interactive network based regional foresight model using qualitative and quantitative methods	Short-to-mid term forecasts of labour market demands on a regional-local level, informing counselling, PES, regional actors, and others
Education Intelligence Foresight System of the Confederation of Finnish Industries (EK)	Series of anticipation projects anticipating changes in the industrial environment	Qualitative long term forecasting including networking, workshops, Delphi surveys, virtual platforms
The Futures Committee in the Finnish Parliament	Expert and Stakeholder Networking, Committee work	Dialogue of stakeholders, Government and Parliament, Reports, 5 – 15 year forecast
National Foresight Network of the Ministries	Inter-ministerial cooperation of various forecasts in sectors	Forum for discussing the results of the anticipation work carried out in the administrative sectors.
ETLA (Research Institute of Finnish Economy) Economic Five Year Regional Forecasting System	Nationwide regional model, which is linked to the global economy.	Five-year projections for regional GDP for both production and employment in 30 industries on a twice-yearly basis.
TEKES (Funding Agency for Technology and Innovation) foresight systems (operating under MEE)	Various quantitative and qualitative forecasts on technology and innovation	Technology foresight and its impact on technology and innovation policy in Finland.
SITRA (Finnish Innovation Fund) foresight systems	Expert networking and analysis	Various future topics like welfare and environment
VTT (Technical Research Centre of Finland) foresight systems	A broad set of foresight activities related to high-end technology and innovation	Various key projects like Foresight Biomedical Sensors, Nordic ICT Foresight and Hydrogen Foresight Project.

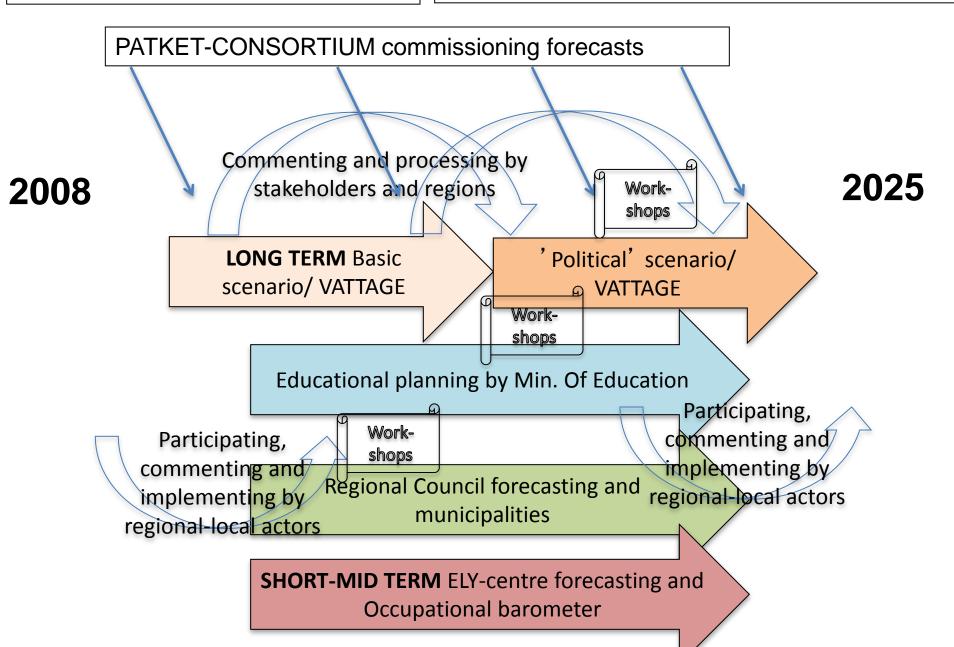
VATTAGE –model of Government Institute for Economic Research (VATT)

- Based on Applied General Equilibrium Model (AGE)Forms the basis of the PATKET- process
- •Quantitative model for long-term forecasts of the development of the economy and labour markets
- •Main outcome of this forecast was a confirmation that Finland is moving towards a service economy, with a very high future demand of social and health services (depending on variables: 60-120 000 new employees needed by 2025)
- •Impossible to fill that demand by recruitment alone transformations and restructuring in service production are needed

PATKET is a Finnish acronym for 'Commission consortium of long-term labour and education need forecasts', and **VATTAGE** is an acronym for 'Government Institute for Economic Research equilibrium model'

PATKET – VATTAGE PROCESS





Regional Foresight Activities and Methods on Regional-local level Finland

Interactive TKTT foresight model (acronym for "Research on the demand of labour and education)
Together with a short-term Occupational Barometer has been found to be useful in South-West Finland, and it now taken up also elsewhere in Finland and abroad

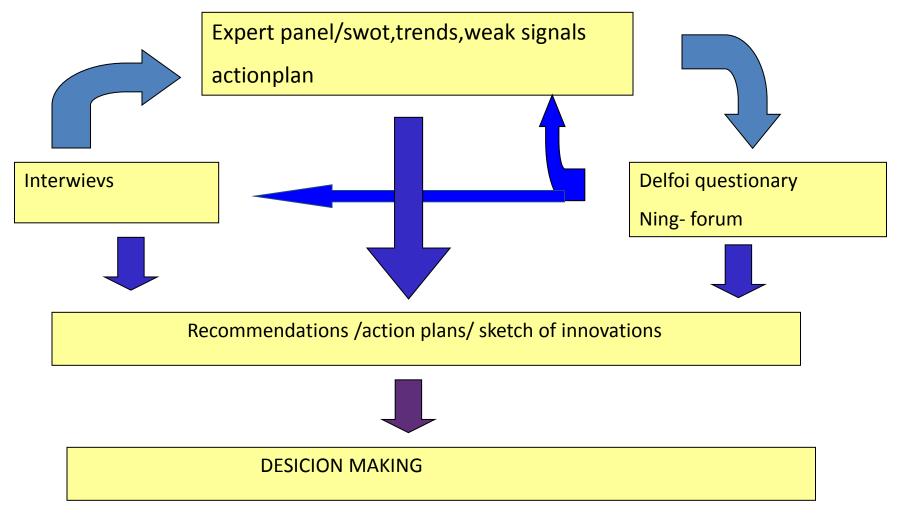
•The responsibility for carrying out the model on the regional level is by the Centres for Economic Development, Transport and the Environment, (ELY-for short in Finnish), which is a state regional function

The targets of the Survey of the needs for workforce and training of enterprises (TKTT-model):

•TE-offices (employment offices) interview a sample of companies of a certain sector

- •Identify the training needs, skills and other development needs of companies (micro level)
- •Expert panels make recommendations in order to develop the studied sector (macro level)
- •Networking of the core actors at local and regional level
- •Promote the understanding and knowledge of the educational institutions, Employment and Economic Development Offices (PES), ELY-centers, and other stakeholders about the needs of employers and sectors

Connection of the TKTT-process to the decision making



Jouni Marttinen 5.12.2007

The themes of interviews (TKTT)

➢ Job increases and job losses by profession

Recruitment problems by profession

➤Training needs by profession

Changes in skills and qualifications by profession

Age distribution and retierement rate of personel

Plans in sub-contracting , networking, new business ideas

> Economical situation now and in one year

>Recommendations to educational institutions

Plans in outsoursing

Prospects in export

Open comments

Occupation barometer 2008-2009

- 1. Employment offices (TE-offices) assess the demand of 200 occupations in one year.
- 2. Employment offices (TE-offices) assess the balance between the demand and supply of 200 occupations
- 3. These 200 occupations are classified in three gategories; a) lack of jobseekers b) balance c) surplus of jobseekers
- 4. Number of jobseekers and vacancies, historical data
- 5. Posters are printed in Finnish, Swedish and English

Occupational barometer of Southwest Finland, I / 2010

* Bottleneck problem

Bottleneck problem is a situation where a labour shortage in the local labour market provents offices and businesses from expanding

1 Additional informati

Jobseekers /month

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Average amount of unemployed and haid-off persons per month in the Southwest Finland region in the period of 8/2009 - 1/2010

Vacancies New vacancies in Southwest Finland region in the period of 8/2009 - 1/2010

KAA=Kaarinan TE-toimisto LAI=Laitilan TE-toimisto LOI=Loimaan TE-toimisto PAI=Paimian TE-toimisto	Estim	sted (and R alf a ;		iour f	orce	for	Extins den	ates	d balan d far b	nce b abour yes	fore	en s te fe	uppily r Itali	and	Balance between supply and demand for labour force in Southwest Finland		
PAI=Farmon TE-termato RAI=Raision TE-termisto			lac	2000	ce fiur	4				G	rest in	ck of	jake	eeko			Great lack of jobssekars		
SAL-Salon TE-termino			1	increa	1003						Lack	ofjol	heed	ones.			Lack of jobseelors	_	_
TKU-Turna TE-toimisto			h	n bala	intere la						b	n bala	ance				In balance		
TUR=Turuzemaan TE-toimisto			τ	Jecre	a.a.e.s						Sarpha	a of j	obues	e korra			Surplus of jobseekers		Red
UKI-Uudenkaupungin TE-toimisto				creak		ıt:					-						Large surplus of jobsoekses		
					-			_	Esting							-	Balance between supply		Vacanties
Occupation	Estim		le	alf a	year				den	(3) (K	for b	yea	fore	e fe	r lust	i a	and demand for labour force in Southwest Finland	Johseekers /neenth	8/2009 - 1/2010
000 - Architects, construction architects									EAA L								In balance	18	9
001 - Civil engineers and construction technicians	EAA LA																	150	55
002 - Engineers and technicians in electric power engineering	EAA LA	I LO	FAI	RAL	SAL.	TKU	TUR	UKI	EAA L	AL L	LOI PA	EAI	SAL.	TRU	TUR	UKI	Surplus of jobsedors	61	15
003 - Engineers and technicians in electronics, information technology and telecommunications	EAA LA	4 LO	FAI	R.AJ	SAL	TKU	TUR	UKI	EAA L	~	101 P.N	EAI	84E	TRO	708	081	Surplus of jobsorkers	242	21
004 - Mochanical engineers and mechanical engineering technicians	EAA LA														718		Large surplus of jobseekers	370	62
	EAA LA																	71	8
007 - Engineers and technicians in other fields of technology	EAA LA	I LO	EAL	RAL	SAL.	TKU	THE	UKI	EAA L	AL L	LOI PA	EAI	SAL.	TRU	TUR	UKI	Surplus of jobseedoers	159	16
008 - Measuring engineers and technicians, and cartographers																		29	6
009 - Technical drawers and other technical fields	EAA LA	I LO	EAL	RAI	SAL.	TKU	TUR	UKI	EAA L	AL 1	LOI PA	EAI	SAL	TRU	TUR	UKI	Surplus of jobsedors	75	3
010 - Chemists	EAA LA	a Lo	EAL	RAL	SAL	TKU	THE	UKI	EAA L	AL L	LOI PA	EAL	SAL.	TRU	TUR	UKI	Surplus of jobuscions	69	10
012 - Life science technicians, laboratory assistants	KAA LA	I LO	EAL	RAL	SAL.	TKU	THE	UKI	EAA L	AL 1	LOI PA	EAL	SAL.	TEU	108	UKI		94	20
021 - Biologists	EAA LA																	-41	3
031 - University teachers and teachers in other institutes of higher education	EAA LA							_									In balance	34	98
032 - Subject teachers, lecturers	KAA LA	I LO	EAL	RAL	SAL.	TKU	THE	UKI	KAA L	AL 1	IOI PA	RAI	SAL.	TRU	100	UKI	Surplus of jobsodors	245	130
033 - Class teachers	EAA LA																	64	62
034 - Special education teachers	EAA LA																	7	25
035 - Narsery school teachers	EAA LA																	25	87
	KAA LA																In belance	-41	11
041 - Clergymen	EAA LA																In balance	10	- 4
	EAA LA																	5	0
054 - Legal advisers, counsellors and experts	EAA LA																	30	2
	EAA LA																	59	13
	EAA LA																	43	8
																	Large surplus of jobseehers	118	8
073 - Designers	EAA LA																	70	- 4
074 - Photographers, cinematographers	EAA LA																	30	1
075 - Drama arfista	EAA LA																	32	20
076 - Maxicians	EAA LA																	48	18
077 - Directors, stage managers	EAA LA																	-41	1
	EAA LA																	48	14
082 - Archive clerks and maseum employees	EAA LA																	32	2
																	Large surplus of jobseelsers	91	6
092 - Researchers in other fields of natural science and the																			
hamanifias	EAA LA																Surplus of jobsordors	75	0
	EAA LA																	0	2
095 - Organization employees	KAA LA																	7	9
096 - Translators, interpreters	KAA LA																	57	17
	EAA LA																	39	7
	EAA LA	LO	EAL	EA1*	SAL	TICU	TUR	UKI	EAAL	AI 1	LOI PA	RAI	SAL.	TRU	208	UKI	Lack of jobs sekers	11	136
103 - Hospital narses	EAA LA	I LO	Pad	EA1*	SAL.	TICU	TUR	UKI	EAA L	AI 1	LOI PAI	RAI	SAL.	TRU	TUR	0.64	Luck of jobs cekers	81	368
	KAA LA																	18	27
105 - Psychiatric mrses	EAA LA	I LO	FAI	RAI	SAL	TKU	TUR	UKI	EAA L	AI [ALL PA	EAI	SAL.	TEU	TUR	UKI	In belance	16	7
106 - Practical nurses, orderlies, institution based personal care workers	EAA LA																	160	340
108 - Assisting work in care and examinations	EAA LA	a Los	EAL	RAI	SAL.	TKU	TUR	UKI	EAA L	AI 1	LOI PA	EAI	SAL.	TEU	TUR	UKI	In belance	1.5-4	101
111 - Physiotherapists	EAA LA																	49	35
112 - Occupational therapy	EAA LA																	12	9
113 - Speech therapy	EAA LA	a Los	EAL	EAP+	SAL.	TKU	TUR	UKI	EAA L	AL L	LOI PA	RAI	SAL.	TRU	TUR	UKI	Luck of jobs eakers	0	9
121 - Dentista	EAA LA	I LO	Paul	EAP+	SAL.	TRUE	THE	UKI	EAA L	AL D	.01 P.N	RAI	SAL.	2800	1 108	UKI	Luck of jobsezkers	5	25
	KAA LA	a Los	EAL	RAL	SAL.	TKU	THE	UKI	EAA L	AL L	LOI PA	EAL	SAL.	TEU	108	UKI	In belance	18	38
123 - Dental hygienist	EAA LA																	2	16
132 - Pharmacists	EAA LA	I LO	EAL	RAL	SAL	TKU	THE	UKI	EAA L	AL L	LOI PA	EAL	SAL.	TRU	108	UKI	Luck of jobseekers	3	18
133 - Pharmaceutical assistants	EAA LA																	16	8
141 - Veterinarians	EAA LA	I LO	EAL	RAI	SAL.	TKU	THE	UKI	EAA L	AL L	LOI PA	EAL	SAL.	TRU	TUR	UKI	Luck of jobsezkers	2	3
151 - Senior social workers and administrative managers	EAA LA																	-4	10
152 - Social workers 154 - Social welfare workers, personal assistants, home			_													_	Orest lack of jobseelars	17	87
154 - Social Weitare Worters, personal assistants, nome based personal care workers	EAA LA	LO	FAI	RAI	SAL	TKU	TUR	UKI	EAA L	~	101 P.A	EAI	SAL.	TRO	108	UKI	Luck of jobsezkers	222	311

Blue = Demand increases

Yellow = Balance

d = Demand decreases

Occupational barometer of Southwest Finland, I / 2010

* Bottleneck problem

Bottleneck problem is a situation where a labour shortage in the local labour market prevents offices and businesses from expanding

! Additional information

Jobseekers /month

Average amount of unemployed and laid-off persons per month in the Southwest Finland region in the period of 8/2009 - 1/2010

Vacancies

New vacancies in Southwest Finland region in the period of 8/2009 - 1/2010

Blue = Demand increases

Yellow = Balance

Red = Demand decreases

KAA=Kaarinan TE-toimisto LAI=Laitilan TE-toimisto LOI=Loimaan TE-toimisto PAI=Painion TE-toimisto	Estimated demand for labour force fo half a year	Estimated balance between supply and demand for labour force for half a year	Balance between supply and demand for labour force in Southwest Finland		
RAI=Raision TE-toimisto	Increases fast	Great lack of jobseekers	Great lack of jobseekers		
SAL=Salon TE-toimisto	Increases	Lack of jobseekers	Lack of jobseekers		
TKU=Turun TE-toimisto	In balance	In balance	In balance		
TUR=Turunmaan TE-toimisto	Decreases	Surplus of jobseekers	Surplus of jobseekers		
UKI=Uudenkaupungin TE-toimisto	Decreases fast	Large surplus of jobseekers	Large surplus of jobseekers		
Occupation	Estimated demand for labour force fo half a year	Estimated balance between supply and demand for labour force for half a year	Balance between supply and demand for labour force in Southwest Finland	Jobseekers /month	Vacancies 8/2009 - 1/2010
034 - Special education teachers		I KAA LAI LOI PAI <mark>RAI</mark> SAL <mark>TKU</mark> TUR UKI		7	25
152 - Social workers	KAA LAI LOI PAI RAI* SAL TKU TUR UI	I KAA <mark>LAI LOI PAI RAI</mark> SAL TKU <mark>TUR</mark> UKI	Great lack of jobseekers	17	87
103 - Hospital nurses	KAA LAI LOI <mark>PAI</mark> RAI* SAL TKU TUR UI	I <mark>kaa</mark> lai <mark>loi pai rai</mark> sal tku tur <mark>uki</mark>	Lack of jobseekers	81	368
332 - Sales representatives and telemarketers	KAA LAI LOI PAI RAI SAL! TKU*! TUR UI	I KAA LAI LOI <mark>PAI</mark> RAI <mark>SAL!</mark> TKU! <mark>TUR U</mark> KI	Lack of jobseekers	192	2437
035 - Nursery school teachers	KAA LAI LOI PAI RAI SAL TKU TUR UI	I KAA <mark>LAI LOI</mark> PAI <mark>RAI</mark> SAL TKU <mark>TUR</mark> UKI	Lack of jobseekers	25	87
106 - Practical nurses, orderlies, institution based personal care workers	KAA LAI LOI PAI RAI SAL TKU! TUR UI	I KAA LAI LOI PAI RAI <mark>SAL</mark> TKU! TUR UKI	Lack of jobseekers	160	340
293 - House managers, stock clerks	KAA LAI LOI PAI RAI SAL TKU*! TUR UN	I KAA LAI LOI PAI <mark>RAI</mark> SAL <mark>TKU!</mark> TUR UKI	Lack of jobseekers	13	4
101 - Physicians	KAA LAI LOI PAI RAI* SAL TKU TUR UN	I KAA LAI LOI PAI <mark>RAI</mark> SAL TKU TUR UKI	Lack of jobseekers	11	136
121 - Dentists	KAA LAI LOI PAI RAI* SAL TKU! TUR UH	I KAA LAI LOI PAI RAI SAL TKU! TUR UKI	Lack of jobseekers	5	25
921 - Head waiters, waiters	KAA LAI LOI PAI RAI SAL TKU! TUR UN	I KAA LAI LOI PAI RAI SAL TKU! TUR UKI	Lack of jobseekers	219	326
113 - Speech therapy	KAA LAI LOI PAI RAI* SAL TKU TUR UN	I KAA LAI LOI PAI <mark>RAI</mark> SAL TKU TUR UKI	Lack of jobseekers	0	9
233 - Accounting staff	KAA LAI LOI PAI RAI SAL TKU! TUR UN	I KAA LAI LOI PAI RAI SAL TKU! TUR UKI	Lack of jobseekers	145	77
132 - Pharmacists	KAA LAI LOI PAI RAI SAL TKU TUR UI	I KAA LAI LOI PAI RAI SAL TKU TUR UKI	Lack of jobseekers	3	18
123 - Dental hygienist	KAA LAI LOI PAI RAI SAL TKU! TUR UN	I KAA LAI LOI PAI RAI SAL TKU! TUR UKI	Lack of jobseekers	2	16
154 - Social welfare workers, personal assistants, home based personal care workers	kaa lai loi pai rai sal tku tur ui	I <mark>kaa</mark> lai loi pai rai <mark>sal</mark> tku <mark>tur</mark> uki	Lack of jobseekers	222	311
211 - Entrepreneurs	KAA LAI LOI PAI RAI SAL TKU! TUR UI	I KAA LAI LOI PAI RAI SAL TKU! TUR UKI	Lack of jobseekers	128	65

The Poster of the Barometer

Southwest Finland's Occupational Barometer 2010 /1

The occupational bacameter is based on the view of the employment and economic development offices on the development of the labour market situation in the coming half year. The situation concerning some occupations and professions may change quickly. The estimate was done in February 2010.

				Dlug
SHORTAGE	Accounting staff Building maintenance workers	Hairdressers, beauticians, bething aids Head walters, walters	Preserved (canned) and frozen food workers Psychologists	Blue
2	Chefs, cooks, restaurant cooks in charge of	Hospital nurses	Sales representatives and telemarketers	
	cold food Cleaners	House managers, stock clerks	Security guards	
	Deck hands and engine crew	Kitchen workers, reslaurant workers Laboratory nurses, radiographers Nursery school teachers	Social weitere workers, personal apolstants, home based personal care workers	Shor
¥	Dental hygienist	Nursery school teachers	Social workers	51101
5	Dentists Engine officers	Pharmacists Physicians	Special education teachers Speech therapy	
L.	Entrepreneurs	Physiotherapists	Veterinariano	labo
	Entrepreneurs Gardeners Gardening assistants	Practical nurses, ordenies, institution based personal care workers		Iabu
	Generary associants	personal care womens		
	Accommodation business managers	Fish farmers	Plastic workers	
22	Agricultural workers	Forest workers	Police	
¥	Architects, construction architects	Foundry workers Glassworks workers	Precision mechanicians	
A	Asphait, rail and road construction workers Assisting work in care and examinations	Home alds, home helps	Psychiatric nurses Road traffic and transport management	
	Bakers, pastrycooks and confectionery makers	Housekeepers, household managers, domestic	Rubber product workers	
BALANCE	Blacksmiths, hammersmiths and forgingpress	workers	Sales executives Salespersons	
	workers Bookbinders and related workers, finishing	Industrial painters and varnishers Institutional catering managers	Securities and financial service dealers	
	room workers	Insurance employees	Senior officials in local government	د: ما / ۸ (
	Bus drivers and car drivers	Interviewers	Senior social workers and administrative	Whit
	Buyers Childminders, day care	Laundry and cleaner's shop workers Lifting truck operators	managers Service station staff	
	Children's day care workers	Mail certiers and mail sorting staff	Shoemakers	
	Civil engineers and construction technicians	Market vendors, door to door salespersons	Shop managers	bala
	Class teachers Clerovmen	Meal service workers and salespersons in catés, canteens etc.	Sports and physical education instructors Stevedoring and loading work	Dala
	Courters, delivery service staff	Measuring engineers and technicians and	Switchboard operators	
	Crane operators	cartographers	Timber workers	
	Dealers of fixed and movable property Deck officers	Metal coating workers Occupational therapy	Trainers and instructors Translators, interpreters	
	Dental nurses	Occupational therapy Office sales representatives	Travel guides	
	Domestic animal caretakers	Organization employees	Trial lawyers	
	Earth moving plant operators	Other tasks in economy, designing and	University teachers and teachers in other	
	Electrical line installers Electrical mechanics fitters	accountacy Other tasks in house building	Institutes of higher education Work in employment service	
	Executives in organisations and unions	Other tasks in real estate and financial service	Youth workers and temperance work	
	Farmers, forest cultivators	business	Instructors	
	Financial management planners, cost accountants	Pharmaceutical assistants Photographers, cinematographers		
6		technology	Musicians	
ŝ	Advertising and markeling managers, designers and researchers	Engineers and technicians in electric power	Office caretakers	
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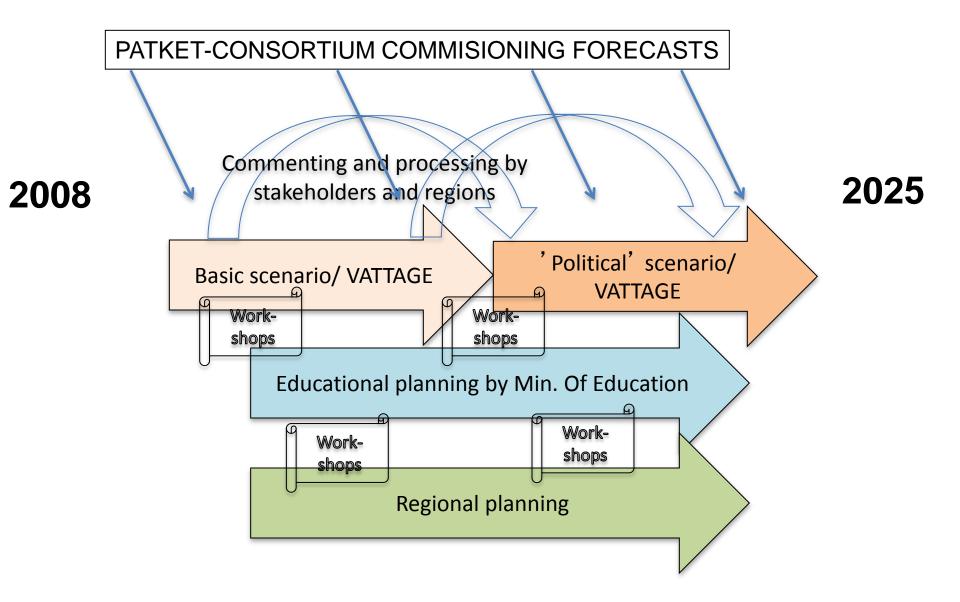
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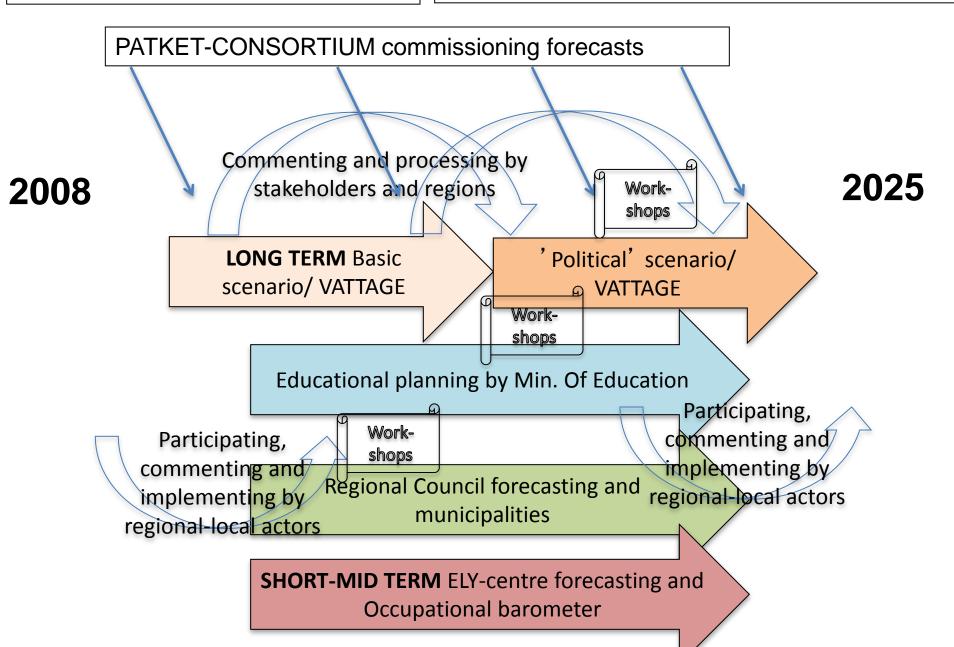
Centre for Economic Development, Transport and the Emiliporment Southwest Finland www.b-bnika.fl Blue = Shortage of labour

White = balance

Orange = surplus

PATKET – VATTAGE PROCESS





Observations Discussion Aspect What is the Finnish Open, multi-actor, multi-More effort needed in anticipation 'system' method, informal, interpretation. Also like? cooperative, transparent fragmentation and redundancy PATKET-VATTAGE a good Continual attention to A step forward to good cooperation is model for forecasting? clarityand transparency of model and roles needed Is there adequate Cooperative and trustful Cooperation needs to be re-invented to meet cooperation and dialogue culture, but under challenges on next in forecasting between pressure and entering a stakeholders, esp. social decades new era partners?, Is Finnish forecasting and Transferring an open Technical aspects easily anticipation transferable? system needs a learning transferable, but process and time networking and political and cultural aspects need adaption

Key challenges

- Connection btw. national strategy and anticipation (Gov. programme <> ministry forecasting network, PATKET-Vattage.. etc)
- Long term (10-20yrs), mid (<10), short (now) (PATKET VATTAGE consortium, TKTT model, Occupetional barometer)
- National regional local and sectoral
- The process, collaboration, dialogue, implem.

Long	mid	short
Patket-Vattage	TKTT (stakeholders)	Barometer (PES)
Educational national	Public (PES, municip) Regional-local	Others
Sectoral	Private reg-loc. (comp.)	
Others	Other	
Workshops	Workshops	Workshops