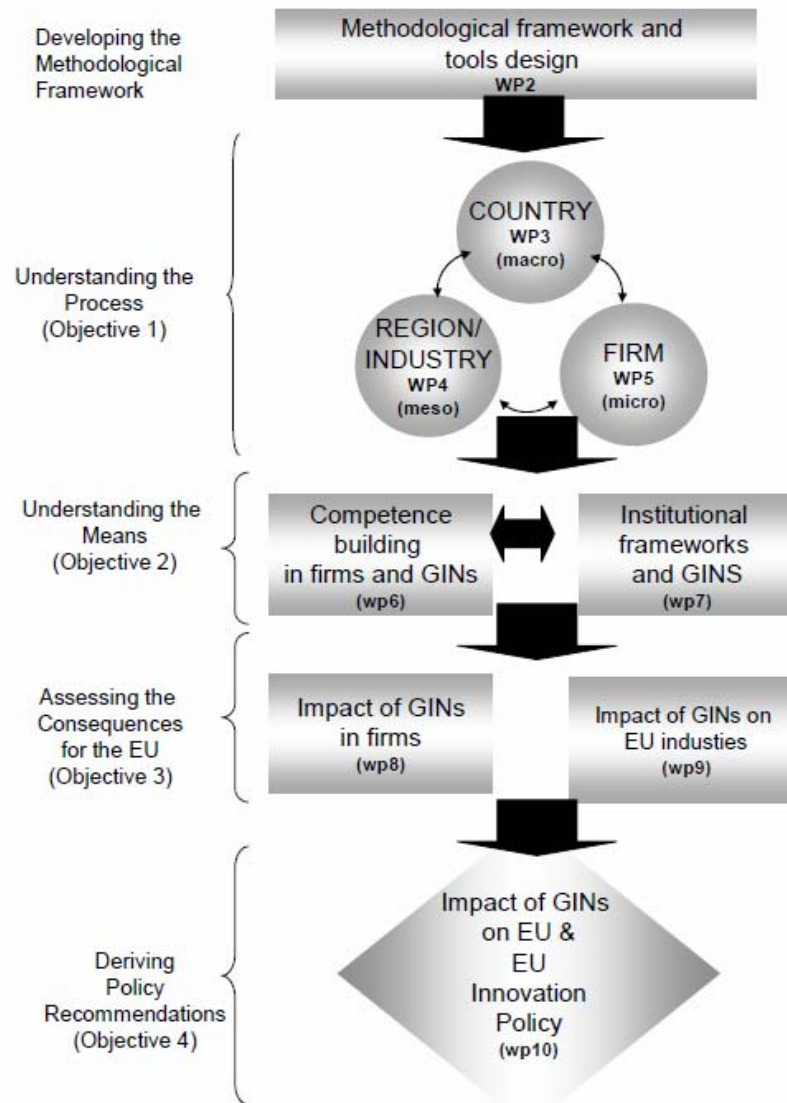
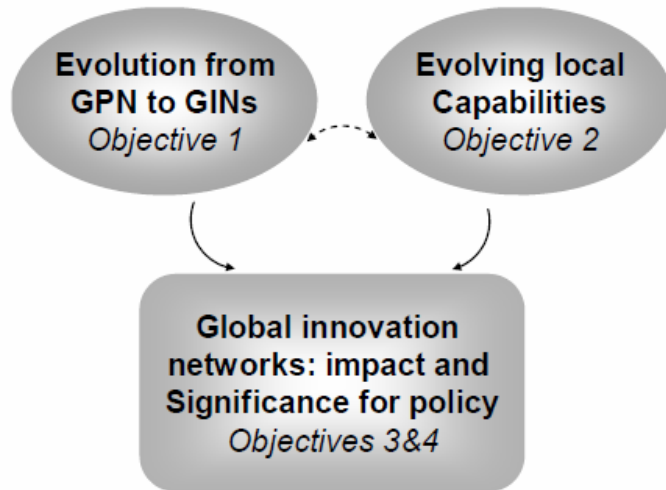


# Discussion session on WP6

# Objective – understanding competence building in firms and GINs

Figure 1: INGENEUS main building blocks



# Detailed objectives

To investigate the fragmentation of GINs and the different demands on capabilities that the different activities pose

To what extent these competences are globally available or highly concentrated in certain regions.

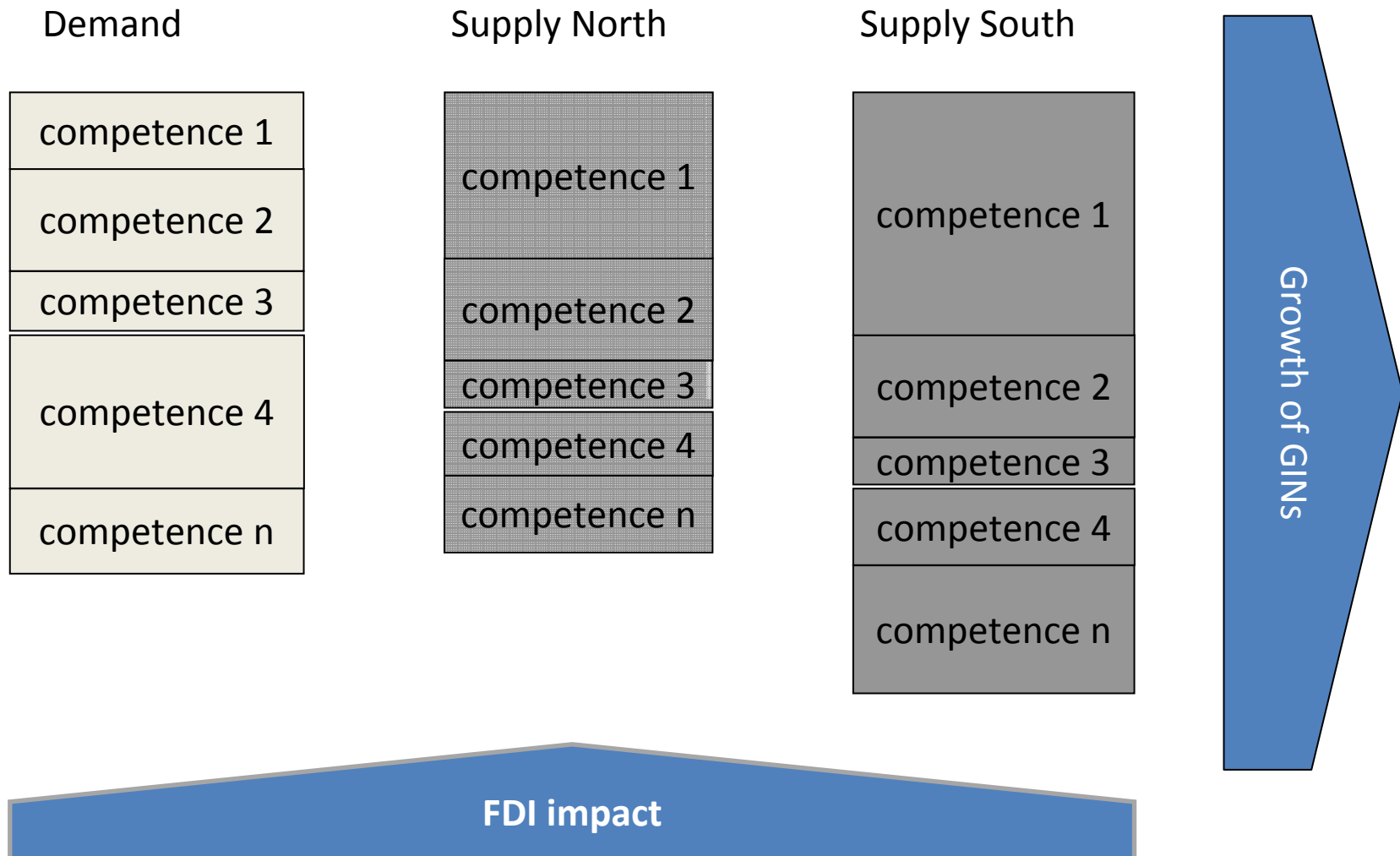
To understand the role of intermediate skills in the competitiveness of high and medium-tech industries

To understand the evolution of the two-way relationship between foreign direct investment and local human capital in firms in Brazil, India, China and South Africa

- To forecast the growth of GINs
- To assess their impact on the EU firms and industries

# Detailed objectives

Firm/ industry specific mix of demanded and supplied competencies in North and South



# Demand & supply factors

- Demanded and supplied competencies depend on:
  - Cost of labour
  - Labour regulation
  - Education system
- Distribution between North and South depends on:
  - Availability of competencies
  - Marginal product of labour
  - How training/FDI can affect marginal product of labour
  - Other determinants of R&D location
- Elasticity of substitution between North and South differs for different competencies, industries and countries

# Detailed objectives

## Demand

	North			South		
	ICT	Automotive	Agro	ICT	Automotive	Agro
Competence 1						
Competence 1						
Competence 1						
Competence N						

## Supply

	North			South		
	ICT	Automotive	Agro	ICT	Automotive	Agro
Competence 1						
Competence 1						
Competence 1						
Competence N						

# Nordic telecoms: comments

What this paper does:

- Describes developments in mobile telecommunications industry
- Describes the role of ICT in Nordic countries
- Describes cases of Nordic ICT firms: firm1, firm2, firm3
- Discusses industry life cycle, open and closed innovation networks and strategies for latecomers

Case	Content
firm1	<ul style="list-style-type: none"><li>• History in Sweden and Estonia</li><li>• Activities of Ericsson Estonia</li><li>• Some info on R&amp;D activities</li></ul>
firm2	<ul style="list-style-type: none"><li>• History in Finland and Estonia</li><li>• History of global expansion</li><li>• Activities of Estonia</li></ul>
firm3	<ul style="list-style-type: none"><li>• History in Europe and Estonia</li><li>• History of global expansion</li><li>• Description of location factors</li><li>• Activities of Estonia</li></ul>

# Nordic telecoms: comments

	This paper
To investigate the fragmentation of GINs and the different demands on capabilities that the different activities pose	(-)
To what extent these competences are globally available or highly concentrated in certain regions.	(+/-)
To understand the role of intermediate skills in the competitiveness of high and medium-tech industries	
To understand the evolution of the two-way relationship between foreign direct investment and local human capital in firms in Brazil, India, China and South Africa	(-)



# Automotive industry in Germany: comments

What this paper does:

- Describes the importance of automotive industry for exports and employment
- Describes organisational structure of the German automotive industry and relations with suppliers
- Discusses importance of R&D for automotive industry
- Describes types of knowledge in different phases of the innovation process
- Describes drivers of internationalisation of innovation
- Presents case studies on learning how to offshore knowledge-based processes
  - Statistics and brief history of selected companies
  - Internationalisation strategy
  - Re-organisation of innovation process
  - Improving the learning capacities of global subsidiaries
  - Learning in internal and external innovation networks

	This paper
To investigate the fragmentation of GINs and the different demands on capabilities that the different activities pose	(+/-)
To what extent these competences are globally available or highly concentrated in certain regions.	(+/-)
To understand the role of intermediate skills in the competitiveness of high and medium-tech industries	
To understand the evolution of the two-way relationship between foreign direct investment and local human capital in firms in Brazil, India, China and South Africa	(+/-)

# Danish agro-food industry: comments

What the paper does:

- Describes the taxonomy of Archbugi and Michie (1995) for globalization of innovation: international exploitation, global generation of innovation, global techno-scientific collaboration
- Describes competitiveness and openness of Danish economy: FDI, collaboration in agro-food industry
- Describes education system
- Describes international sourcing by Danish and Scandinavian firms and job creation
- Describes R&D expenditures in Denmark and Europe
- Describes push and pull factors in Danish agro-food industry
- Describes R&D in the agro-food industry
- Cases of four companies

	This paper
To investigate the fragmentation of GINs and the different demands on capabilities that the different activities pose	(+/-)
To what extent these competences are globally available or highly concentrated in certain regions.	(+/-)
To understand the role of intermediate skills in the competitiveness of high and medium-tech industries	
To understand the evolution of the two-way relationship between foreign direct investment and local human capital in firms in Brazil, India, China and South Africa	(+/-)

# firm4: comments

What this paper describes:

- Changes in education system in China and India
- Barro-Lee index on education attainment in China and India
- History of firm4 and basic R&D at firm4
- Intelligent city project in Bengaluru in India
- Innovation strategy:
  - Internal network
  - Strategic alliance between firm4 and firm5
  - Acquisition of firms by firm4
- Presence of firm4 in China and India
- Cooperation with universities in India (Global Talent Acceleration Program)
- Firm4 recruitment needs

	This paper
To investigate the fragmentation of GINs and the different demands on capabilities that the different activities pose	(+/-)
To what extent these competences are globally available or highly concentrated in certain regions.	(+/-)
To understand the role of intermediate skills in the competitiveness of high and medium-tech industries	
To understand the evolution of the two-way relationship between foreign direct investment and local human capital in firms in Brazil, India, China and South Africa	(-)

# Automotive industry in Brazil: comments

What the paper does:

- Describes evolution of FDI
- Describes education and training system
- Presents evolution of education statistics
- Describes development of automotive industry in Brazil
- Cases studies of five companies in automotive industry: one manufacturer and four auto parts suppliers
- Describes requirements regarding workforce (too detailed)

	This paper
To investigate the fragmentation of GINs and the different demands on capabilities that the different activities pose	(+)
To what extent these competences are globally available or highly concentrated in certain regions.	(+)
To understand the role of intermediate skills in the competitiveness of high and medium-tech industries	
To understand the evolution of the two-way relationship between foreign direct investment and local human capital in firms in Brazil, India, China and South Africa	(+)