INTEGRATION

INTEGRATION OF SEA LAND TECHNOLOGIES FOR AN EFFICIENT INTERMODAL DOOR TO DOOR TRANSPORT

G3RD-CT-2002-00831

Horizontal WP 3

Assessment, Evaluation, Implementation and Exploitation

WP Leader: NTUA

Kick-Off Meeting

4 & 5 September 2002

Horizontal WP3 **Overall Objectives**

An analysis of the freight transport scenario is necessary to identify the overall demands for new ships and systems.

On the basis of the Major traffic flows and door-to-door possible transport scenarios, **mission profiles and terminal performances will be defined.**

An analysis is made of existing and near future technologies, that are evaluated both technically and economically.

More in detail, Horizontal WP3 aims at:

- **Improving continuously the market and available technologies scenario** in order to update the competing solutions and benefit from new market and technological opportunity.
- **Describing the European scenarios for freight traffic flows** and identify the opportunities for maritime transport to play a greater role.
- **Verifying the work in progress** in order to have the required transfer of results among technical Tasks/Work Packages.
- **Evaluating the quality of the technical results** obtained (performances/time/costs/impact) to properly make the choice for virtual simulation exercises and for exploitation and dissemination activities, to stimulate spin off to industries.
- **Exploiting results** as soon as available, in order to adopt new solutions at the earliest time, and prepare on the base of validated results the conditions, when longer time is required for innovation

Horizontal WP3 is a key package, since it :

- Provides the virtual simulation Horizontal WP 1 with all transport scenario references, in order to identify in a quantitative way the impact of INTEGRATION.
- Enables the interaction of the Consortium with the external world (operators, industries, technology providers and final users) during the project development to continuously update the scenario of available technologies, which are to be taken into account in the virtual validation scenario of Horizontal WP1, and to follow the evolution of market demand and society needs.
- Ensures the assessment of the compliance to the industrial interests and needs through the interaction by the Industrial Advisory Group between INTEGRATION and the industries.

Horizontal WP3 is articulated into **eight** tasks

Task 3.1 Door to door freight transport scenarios

Task 3.2 Enabling technologies

Task 3.3 Industrial Advisory Group

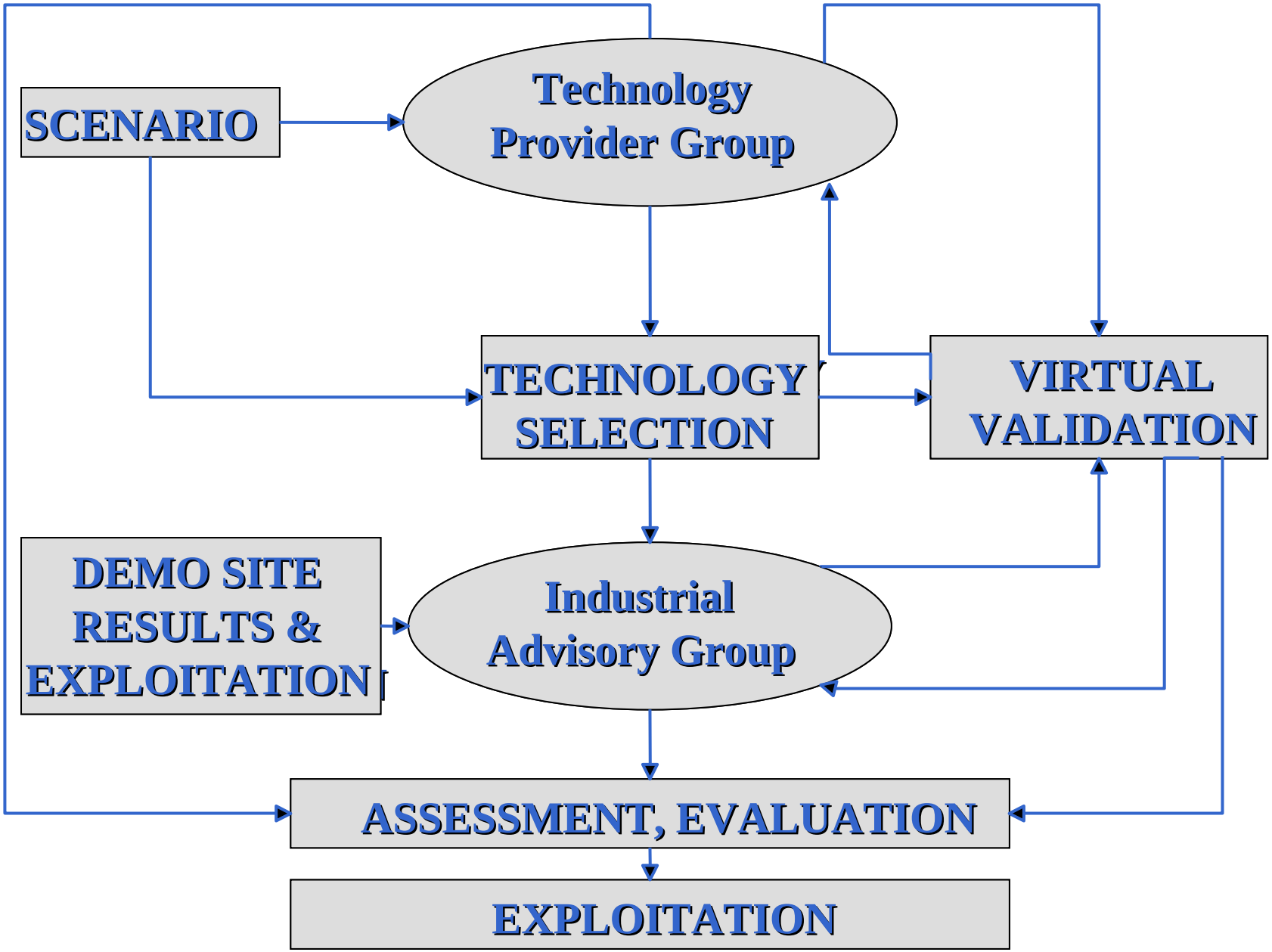
Task 3.4 Technology Provider Group

Task 3.5 Validation by the Logical Framework Matrix approach

Task 3.6 Impact of new technologies on the effectiveness of door-to-door intermodal transport

Task 3.7 Monitoring, assessment, evaluation and implementation

Task 3.8 Exploitation & dissemination.


SCENARIO
Technology Provider Group
TECHNOLOGY SELECTION
VIRTUAL VALIDATION
DEMO SITE RESULTS & EXPLOITATION
Industrial Advisory Group
ASSESSMENT, EVALUATION
EXPLOITATION

Starting date: **month 1** Duration: **36 months** Total effort **127.95 mm**

	T 3.1	T 3.2	T 3.3	T 3.4	T 3.5	T 3.6	T 3.7	T 3.8	*Total per partner*
CETENA	5	5	3	2		4	2	5	26
IZAR			1					1	2
FINCANTIERI	2	3	1					1	7
TTS		0.5	0.5	0.5				0.5	2
BMT	2	3						1	6
LOGIT		1						0.7	1.7
MCT			1					0.9	1.9
DFDS			1					1	2
GRANFERRY			1					1	2
DNV	0.25	0.5							0.75
NDC				1				1	2
TFK						6			6
SSPA	2		14.4					0.6	17
STRATHCLYDE UNIVERSITY								1	1
PORT OF LIVORNO								0.4	0.4
SIR								1	1
VNSI				4.9					4.9
NESTEAR	10					3	3		16
NTUA		5			15			3.8	23.8

T 3.1

DOOR-TO-DOOR FREIGHT TRANSPORT SCENARIOS

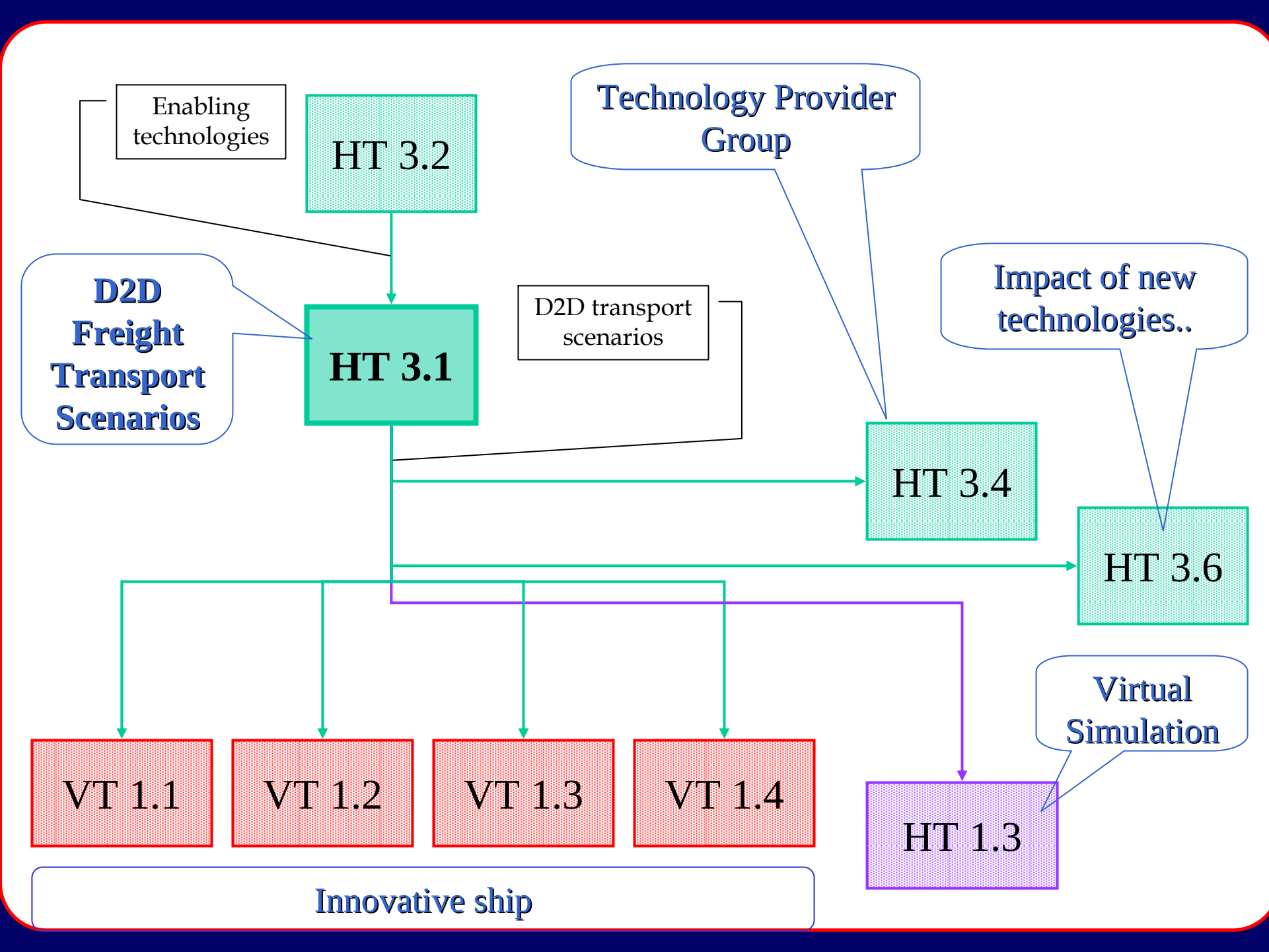
Starting date: month nr. **1** Duration: months **22**

	man months
CETENA	**5**
FINCANTIERI	**2**
BMT	**2**
DNV	**0.25**
SSPA	**2**
NESTEAR	**10**
Total	***23.25***

Overall Objectives of Task 3.1

Development of European door-to-door freight transport scenarios.

Interpretation of future demands and the application and impact of new enabling technologies.


Enabling technologies
HT 3.2
Technology Provider Group
D2D Freight Transport Scenarios
HT 3.1
D2D transport scenarios
Impact of new technologies..
HT 3.4
HT 3.6
VT 1.1
VT 1.2
VT 1.3
VT 1.4
Virtual Simulation
HT 1.3
Innovative ship

T 3.2

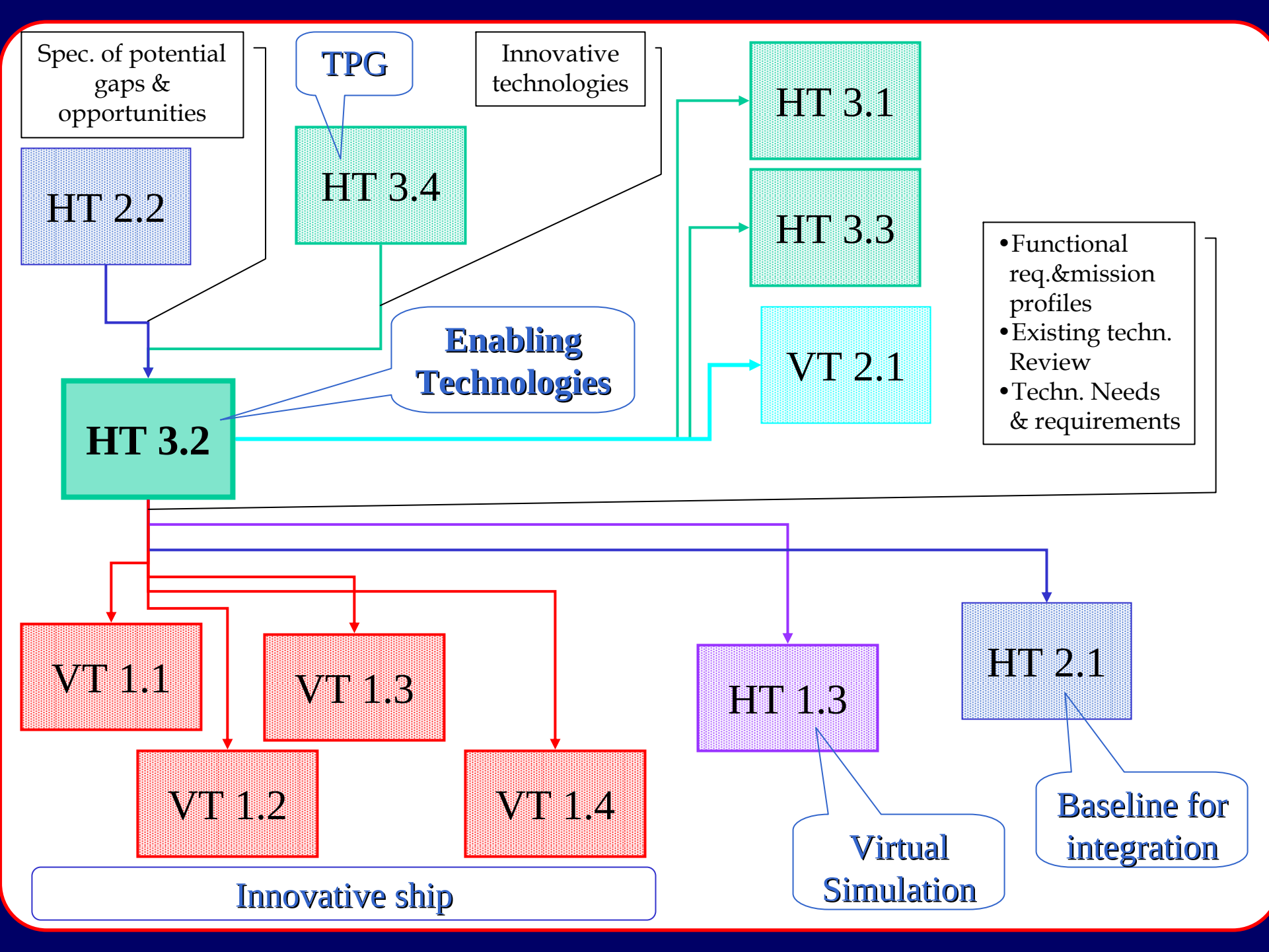
ENABLING TECHNOLOGIES

Starting date: month nr. 1 Duration: months 26

	man months
CETENA	5
FINCANTIERI	3
TTS	0.5
BMT	3
LOGIT	1
DNV	0.5
NTUA	5
Total	*19*

Overall Objectives of Task 3.2

Identification of door-to-door freight transport emerging technologies for the ship and cargo handling systems.


Spec. of potential gaps & opportunities
TPG
Innovative technologies
HT 2.2
HT 3.4
HT 3.1
HT 3.3
VT 2.1
Enabling Technologies
HT 3.2
•Functional req.&mission profiles
•Existing techn. Review
•Techn. Needs & requirements
VT 1.1
VT 1.3
VT 1.2
VT 1.4
HT 1.3
HT 2.1
Virtual Simulation
Baseline for integration
Innovative ship

T 3.3

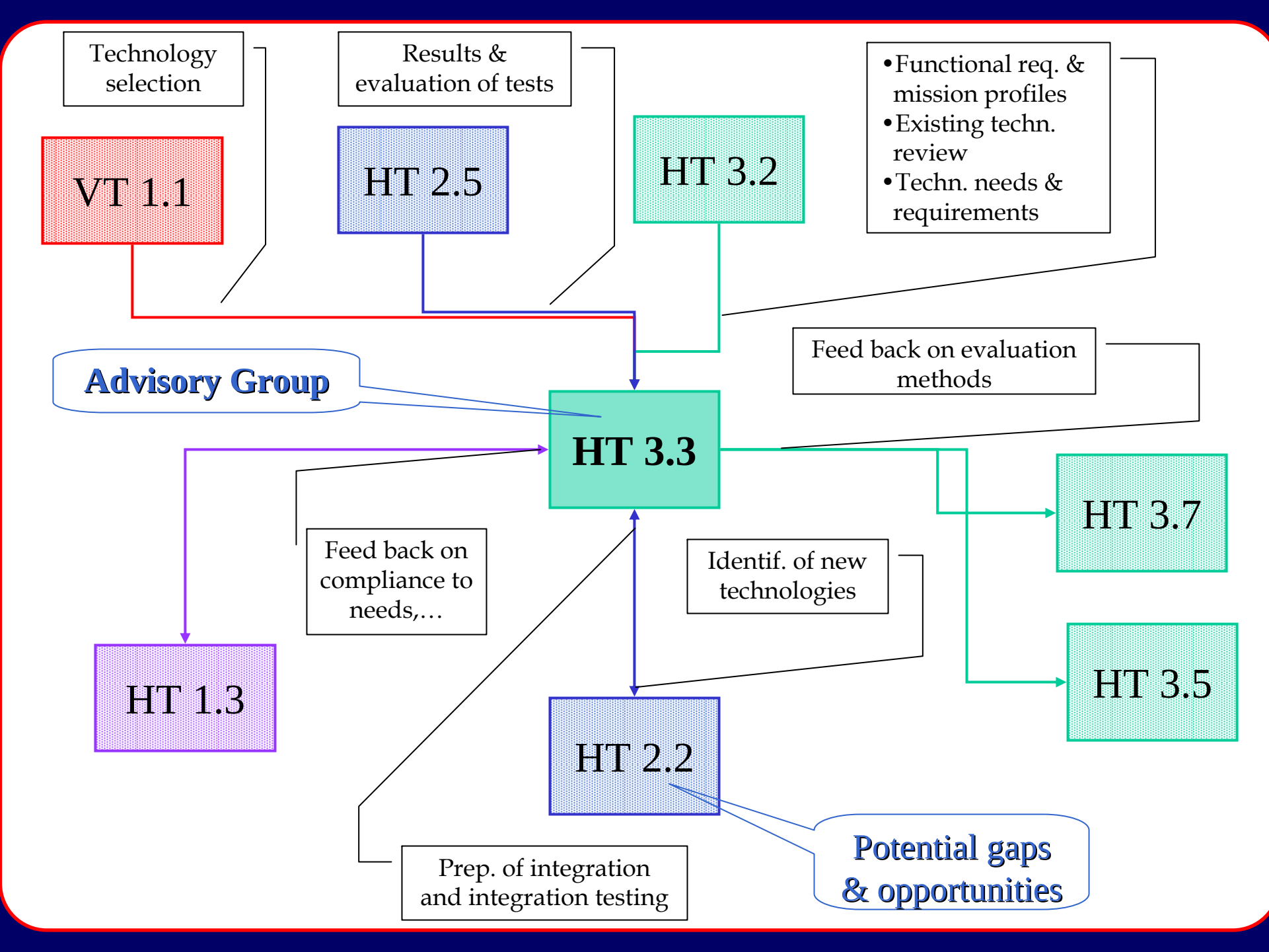
ADVISORY GROUP ACTIVITY

Starting date: month nr. **1** Duration: months **36**

	man months
CETENA	**5**
IZAR	**1**
FINCANTIERI	**1**
TTS	**0.5**
MCT	**1**
DFDS	**1**
GRANFERRY	**0.5**
SSPA	**14.4**
Total	***14.4***

Overall Objectives of Task 3.3

The Advisory Group has been established to continuously interact with the external world and the stakeholders such as Maritime administration, operators, industries, during the project development in order to assess the compliance to the stakeholders' interests, needs and constraints.


Technology selection
Results & evaluation of tests
•Functional req. & mission profiles
•Existing techn. review
•Techn. needs & requirements
VT 1.1
HT 2.5
HT 3.2
Advisory Group
Feed back on evaluation methods
HT 3.3
HT 3.7
Feed back on compliance to needs,…
Identif. of new technologies
HT 1.3
HT 3.5
HT 2.2
Potential gaps & opportunities
Prep. of integration and integration testing

T 3.4

TECHNOLOGY PROVIDER GROUP ACTIVITY

Starting date: month nr. **1** Duration: months **24**

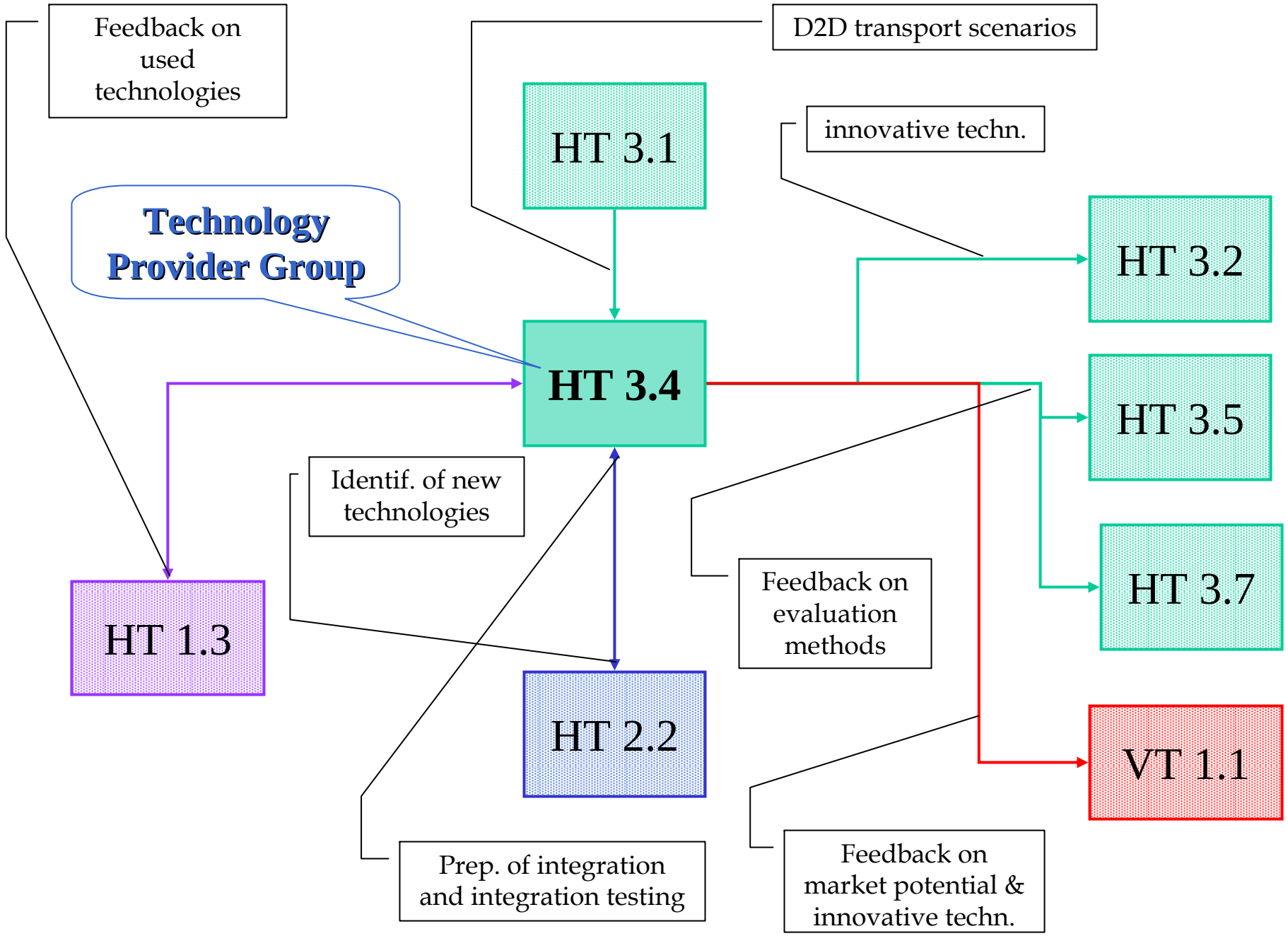
	man months
CETENA	**2**
TTS	**0.5**
NDC	**1**
VNSI	**4.9**
Total	***8.4***

Overall Objectives of Task 3.4

The Technology Provider Group aims at stimulating the adoption in the project of innovative technological solutions that are likely to have effective market potential.

Another objective is to involve the technology owners interested in promoting technologies that:

- are close to the market,
- can widen the market through integration in the multimodal transport chain,
- can be transferred by other industrial sectors


Feedback on used technologies
D2D transport scenarios
HT 3.1
innovative techn.
Technology Provider Group
HT 3.2
HT 3.4
HT 3.5
Identif. of new technologies
HT 3.7
Feedback on evaluation methods
HT 1.3
HT 2.2
VT 1.1
Prep. of integration and integration testing
Feedback on market potential & innovative techn.

T 3.5

VALIDATION BY THE LOGICAL FRAMEWORK MATRIX APPROACH

Starting date: month nr. **18** Duration: months **13**

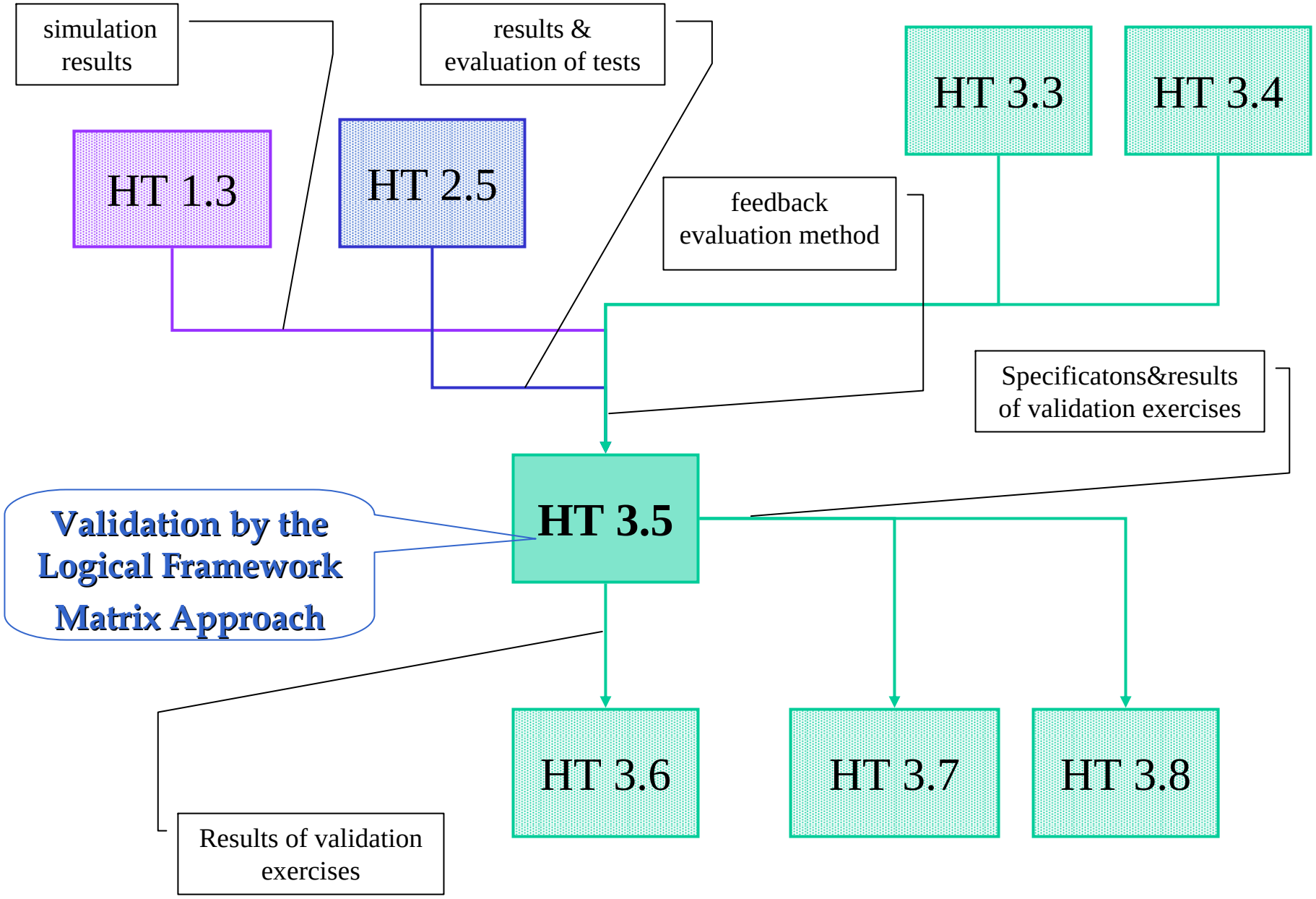
	man months
NTUA	**4.9**
Total	***15***

Overall Objectives of Task 3.5

This task will define proper validation exercises including defining:

- **The context**
- **The scenario**
- **The validation criteria**

Then it will assess and evaluate the results of Vertical WP2 (Task 2.6 and possible other Tasks).


simulation results
results & evaluation of tests
HT 3.3
HT 3.4
HT 1.3
HT 2.5
feedback evaluation method
Specificatons&results of validation exercises
Validation by the Logical Framework Matrix Approach
HT 3.5
HT 3.6
HT 3.7
HT 3.8
Results of validation exercises

T 3.6

IMPACT OF NEW TECHNOLOGIES ON THE EFFECTIVENESS OF DOOR-TO-DOOR INTERMODAL TRANSPORT

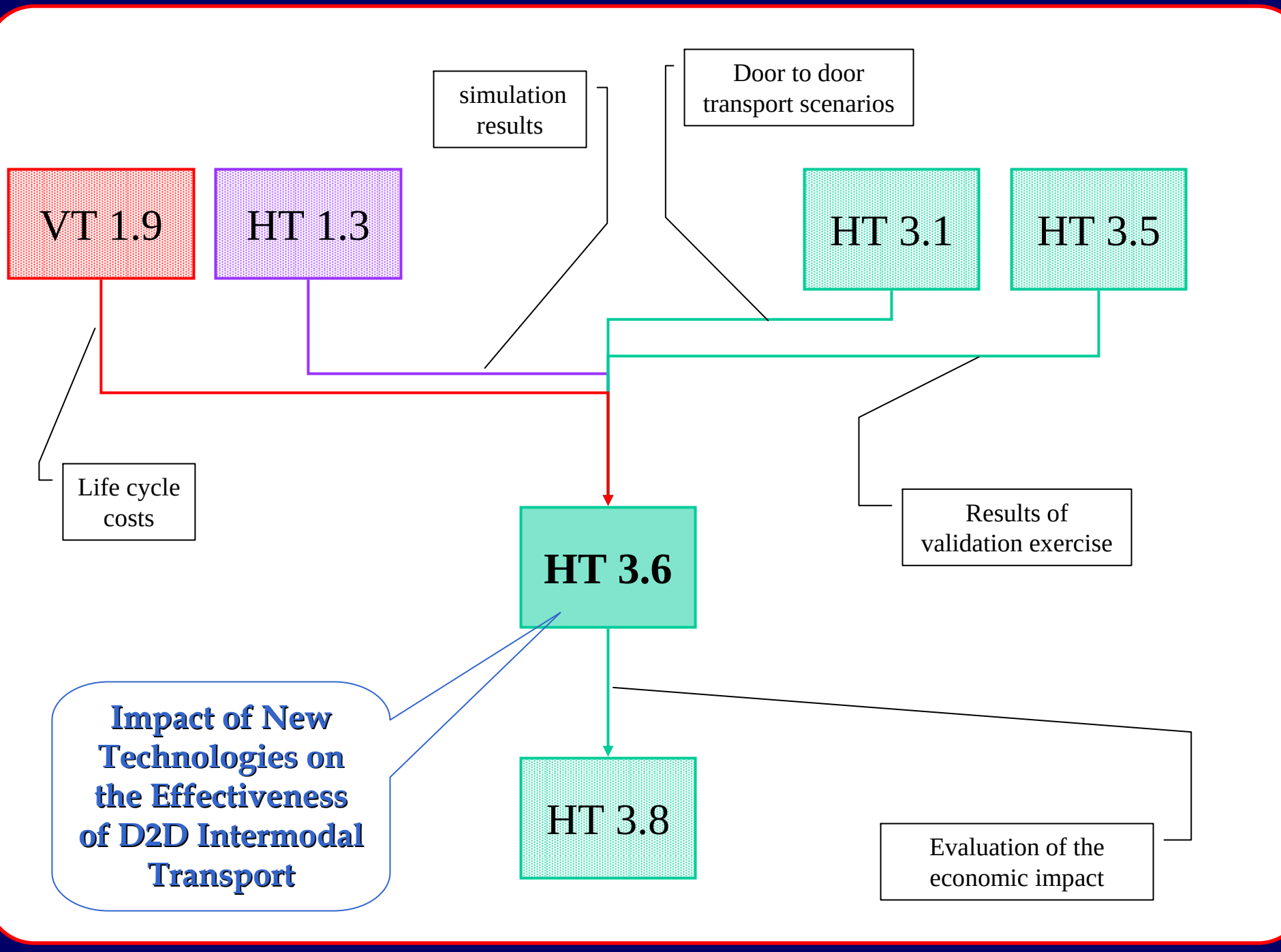
Starting date: month nr. 9 Duration: months 4

	man months
CETENA	4
NESTEAR	3
TFK	6
Total	*13*

Overall Objectives of Task 3.6

To evaluate the economic impact of implementing the INTEGRATION technologies in real transport chains.

The evaluation will be made in the Baltic/North Sea and the Mediterranean


simulation results
Door to door transport scenarios
VT 1.9
HT 1.3
HT 3.1
HT 3.5
Life cycle costs
Results of validation exercise
HT 3.6
Impact of New Technologies on the Effectiveness of D2D Intermodal Transport
HT 3.8
Evaluation of the economic impact

T 3.7

MONITORING, ASSESSMENT, EVALUATION, IMPLEMENTATION

Starting date: month nr. 5 Duration: months 32

	man months
CETENA	2
NESTEAR	3
Total	*5*

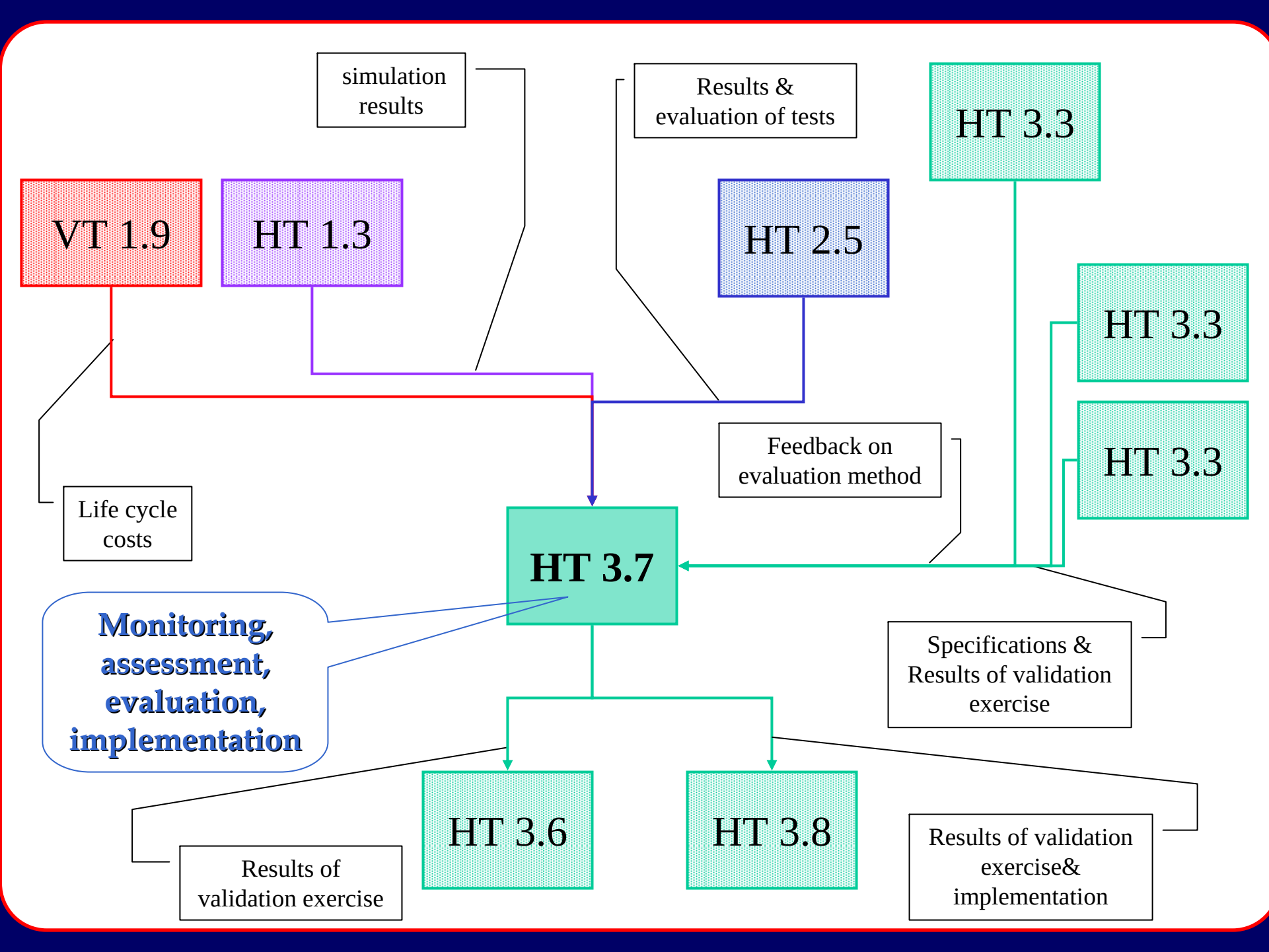
Overall Objectives of Task 3.7

Monitoring the technical advancement of the project versus the project objectives.

Assessment of the work in progress and evaluation of results.

Implementation has two goals:

- **implementation of new services based on new technologies: this would require some time to get shippers used to these techniques**
- **the economic return for the industrialists: how many ships or transhipment equipment can be sold.**


simulation results
Results & evaluation of tests
HT 3.3
VT 1.9
HT 1.3
HT 2.5
HT 3.3
HT 3.3
Feedback on evaluation method
Life cycle costs
HT 3.7
Monitoring, assessment, evaluation, implementation
Specifications & Results of validation exercise
HT 3.6
HT 3.8
Results of validation exercise
Results of validation exercise& implementation

T 3.8

EXPLOITATION &DISSEMINATION

	Man months
CETENA	5
IZAR	1
FINCANTIERI	1
TTS	0.5
BMT	1
LOGIT	0.7
MCT	0.9
DFDS	1
GRANFERRY	1
NDC	1
SSPA	0.6
STRATHCLYDE UNIVERSITY	1
PORT OF LIVORNO	0.4
SIR	1
NTUA	3.8

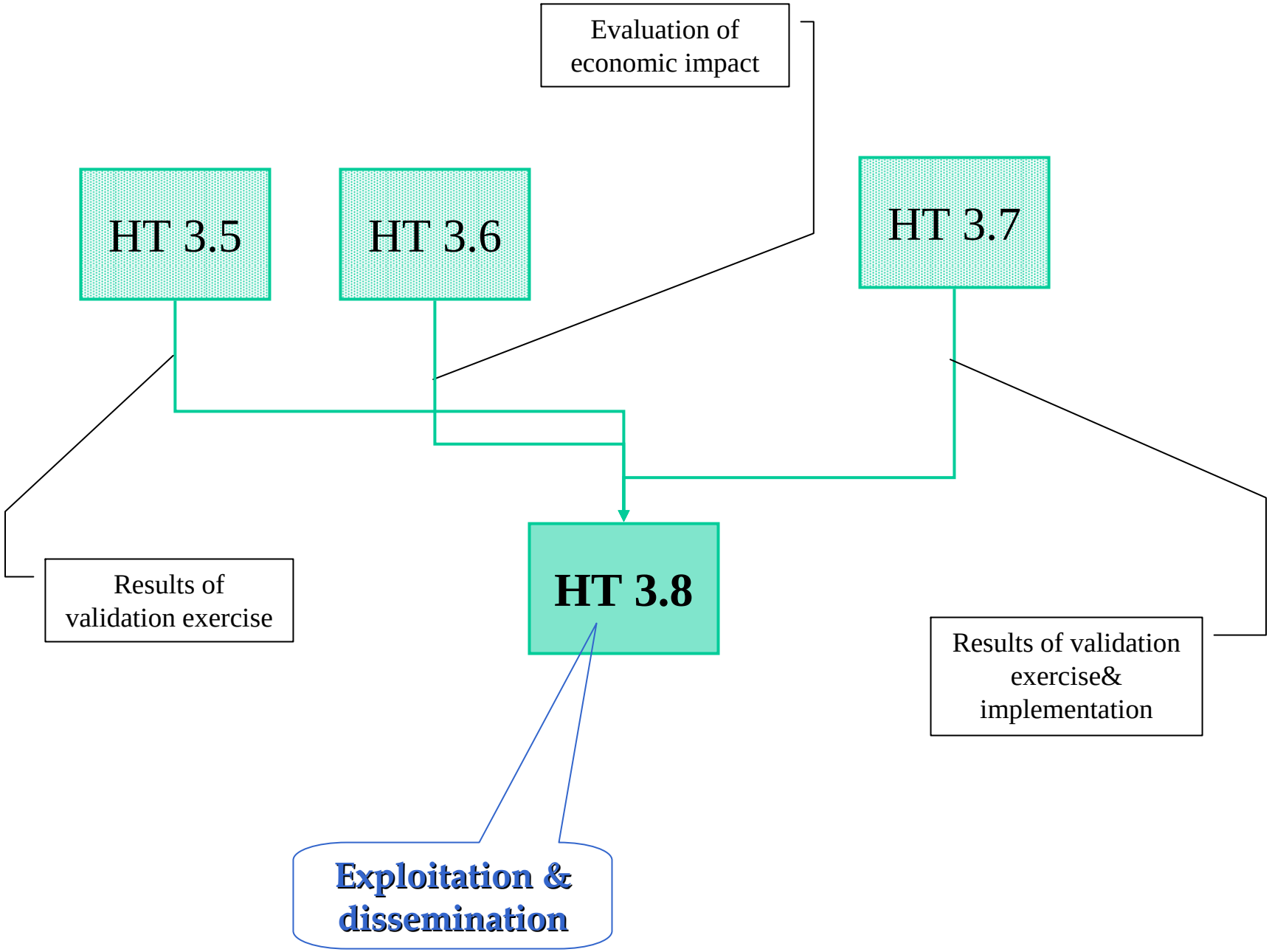
Starting date: month **11**

Duration: months **25**

Total effort: **21,4 mm**

Overall Objectives of Task 3.8

To generate the exploitation plan of INTEGRATION.


Evaluation of economic impact
HT 3.5
HT 3.6
HT 3.7
Results of validation exercise
HT 3.8
Results of validation exercise& implementation
Exploitation & dissemination

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