European IWT Platform

Making DINA a reality: First steps as seen by the industry

Framing the exercise

Looking at literature (see next page) from:

- a Business perspective
- and even more:
  - Supply Chain perspective
  - Operational perspective

Validate and “take a step" towards an implementation project.

Or, in other words, trying to set the scene for kicking it off...

To Be!

In other words "The vision " or " Desired End State"

Based on Staff Working Doc (18/9/2018) and "TNO-report" of 9/2017 called (Digital Inland Waterway Area) and highly summarised

- Effective and Efficient Integration in Logistic Processes
- Effective and Efficient Navigation and Traffic Management
- Effective and Efficient Admin for complying with Legislation

To be added :

- All in the context of maximal safety and security !!!
- With the aim to realise Green Deal, Modal Shift, … targets

Validation still pending.

As is …

…. by referring to the Platina 3 document
“Setup for holistic digitalization strategy for IWT”

- Analyse current systems and operations and understand it
- Define “starting point” and consequently road(s) towards the desired end state
- Engage all relevant stakeholders of which the businesses are probably the key ones while at the same time creating a sense of urgency.
- Define a clear target linked to specific goals in the future and in line with the overall policy strategy,
- Define operational targets and measures to achieve these objectives

The vision should be in line with the overall policy strategy, should create a sense of urgency for all involved stakeholders and should be linked to specific goals in the future (e.g. in the shape of an operationalised roadmap). It should be avoided that the vision is set up before analysing current systems and operations. It is essential to have a clear understanding of the current reality, what the starting point is and, consequently, the direction that needs to be travelled (www.thedigitaltransformationpeople.com). Moreover, change and success need to be measurable upfront by means of relevant KPIs. Another typical pitfall is that the vision is poorly communicated beyond the involved few stakeholders.

A strategy generally includes the definition of a strategic vision and objectives, as well as operational targets and measures necessary to achieve these objectives. A good strategy thereby provides orientation in the sense of a roadmap: it is not a rigid plan that defines that target destination Z can be reached by starting from A by travelling via route B only. Different unexpected changes may require the development of other routes as well. Certain routes could get obstructed/congested, weather conditions on route C might deteriorate, etc. Instead a strategy, especially for a volatile topic such as digitalisation, shall be a dynamic and an iterative process:

- The only robust parameters shall therefore be a common understanding of the starting position A and an agreement of the destination Z (the vision).
- The actual route on how to reach the destination (will we take the roads via B, F, G or W?) will change under the influence of changing external conditions (such as technological and market developments)

As is

The next slides try to picture elements of the “As Is” which needs to be further investigated and categorized as :

- Maintain since it leads to the “must have” (or already led towards)
- Maintain since it leads to “ Nice to have “ (or already led towards)
- Eliminate

Page 17 - 19 of P3 "Setup for holistic digitalization strategy for IWT" document can be used to define Must/Nice/No

Market/logistics	Fleet	Jobs&Skills	Infrastructure
Improved traceability of cargo	Single point of access for IWT vessel documents	Single point of access for IWT crew information	Single point of access for infrastructure requirements and characteristics
Lowering the transaction costs for finding, booking and executing IWT logistics services.	Automatic coupling of vessel and crew data	Modernise/flexible manning requirements	Facilitate increased use of inland waterways as a modality supporting a modal shift
Attract additional payload	More efficient navigation (saving costs and improving reliability): efficient voyage planning	Higher availability of qualified human resources	Support the safe and efficient use of inland waterways through more

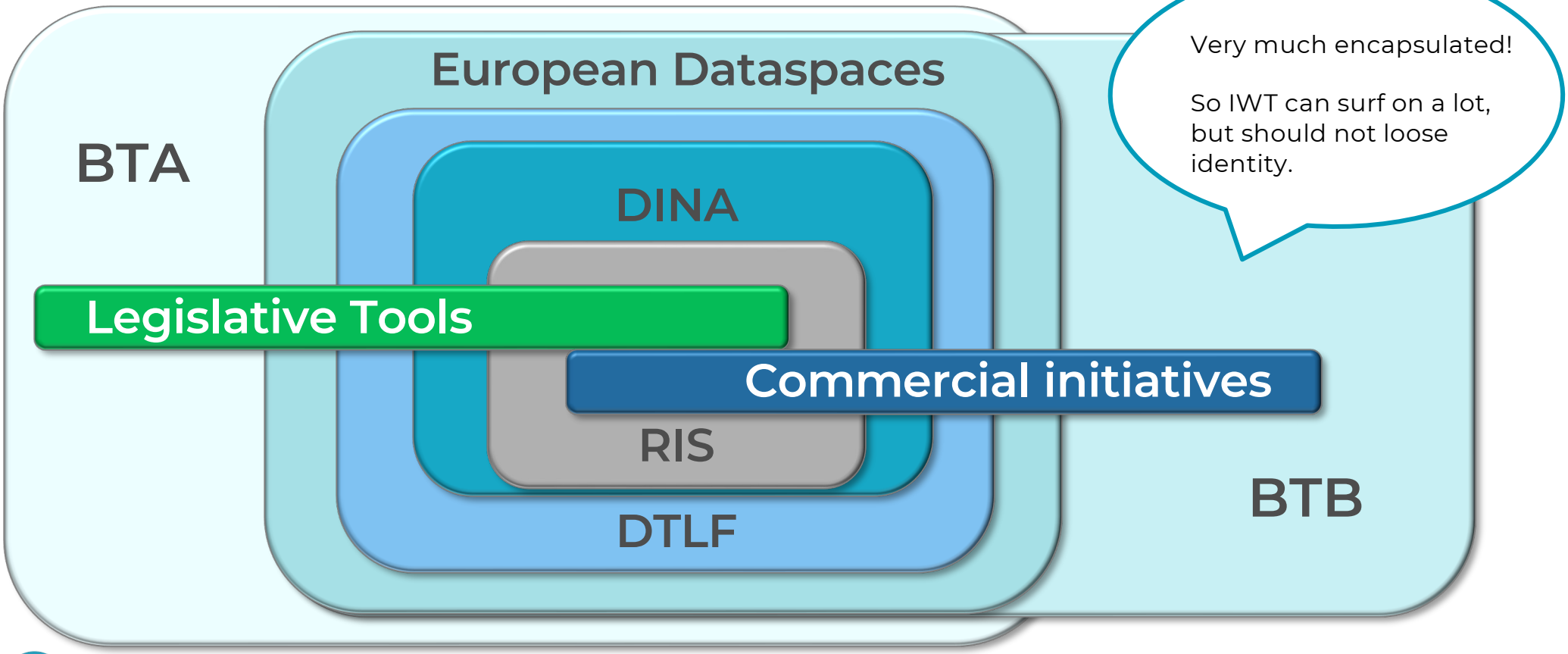
including supply chains with other transport modes	efficiency, safety and sustainability		manage infrastructure and traffic in a safe and efficient manner
Enhanced information services for transport logistics	exchange of information contained in the vessel certificates between the competent authorities based on European Hull Database		Shorter waiting times at locks, ports and terminals
More efficient multimodal transhipment operations			Reduced transhipment costs
Better voyage and logistics planning			Enhanced information services for traffic management
More operational cooperation between operators			Improved infrastructure and fairway conditions
Seamless multimodal information chain			Raise knowledge level and awareness on opportunities of IWT

			advanced traffic management
Optimal navigation (fuel efficient, safe), Including reporting on the fuel consumption and carbon footprint, e.g. as input for carbon reporting, benchmarking, index-label systems	Increase fleet utilization	More modular and permeable education programmes	Improved berth management in terminals
Vertical integration: process synchronisation between shippers/logistics services providers and barge operators	Adapt voyage plans based on real-time conditions	Enhanced recognition of comparable education and skills	Most efficient employment of personnel and equipment in terminal operations
Make more systematic use of the booking and cargo management systems of shippers and logistics service providers	Less greenhouse gas emissions to air and water pollution by fleet operation and transparency by means of (digital) reporting	More awareness on job and career opportunities	Optimal use of the infrastructure
To exchange information about logistics needs, transport capabilities, bookings and status updates	Higher safety of navigation	Improved social standards and working conditions	Safe, efficient traffic management and navigation
Reduce transaction costs when conducting business with barge operators	Lower specific fuel consumption	More awareness on environmental performance by means of measurements and digital reporting	Horizontal integration: Process synchronization between barge operators and (inland) ports, hubs and terminals
Providing readily accessible information about IWT services and their availability	Higher average utilisation rate of vessels and less empty runs	Exchange of information related to professional qualifications of IWT inland navigation personel through European Crew Qualification Database	Share required detailed voyage plans with the fairway authorities to improve infrastructure and traffic management
Share information about the journey, resulting in higher logistics efficiencies at ports and terminals	Autonomous barging with on-board applications that can be controlled remotely and that are linked to a cloud based environment		Secure availability of up-to-date information on traffic conditions
Integration of IWT in logistics processes	Autonomous sailing to contribute to improved		Efficient navigation and traffic management:

Where is IWT in the overall picture …

- Is the picture complete and correct?
- Are we where we want to be?

Where is IWT in the overall picture



Picturing the elements

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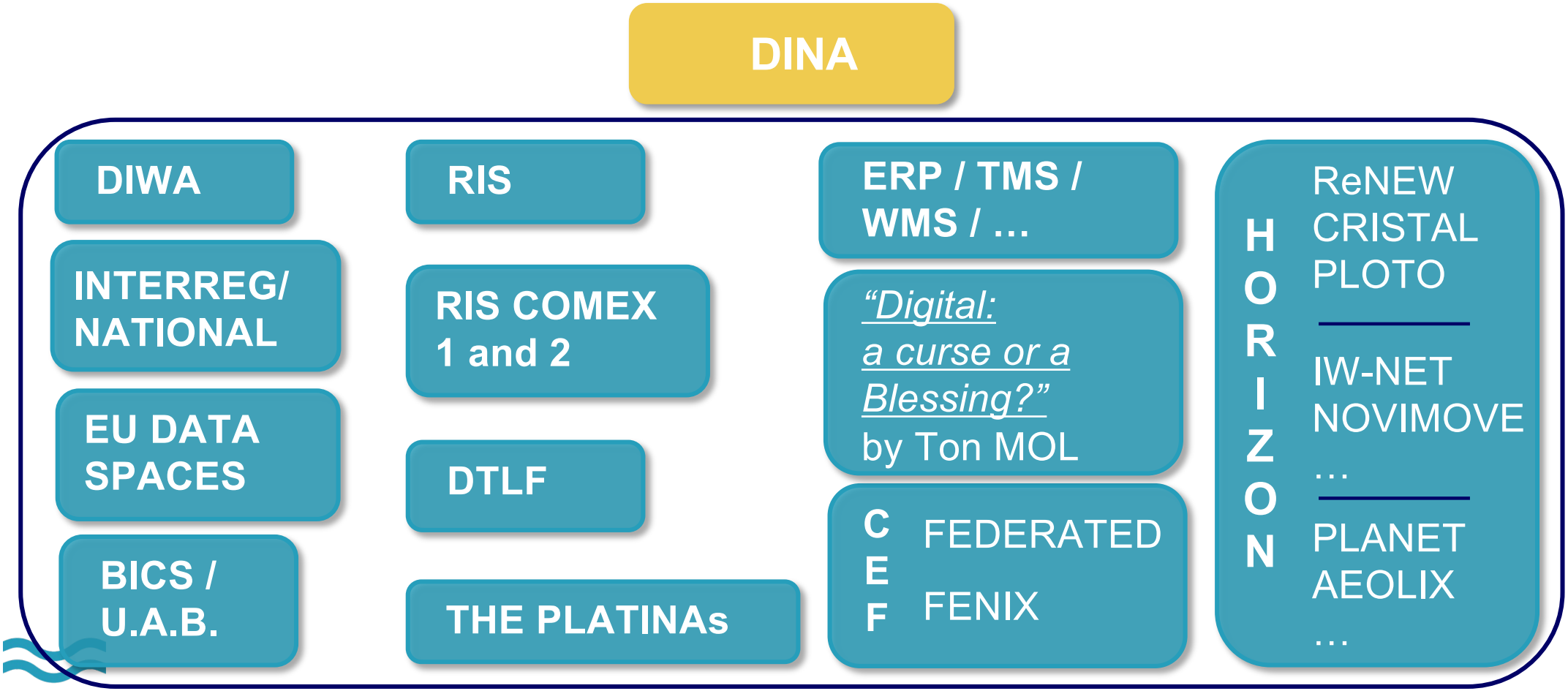
DINA

Picturing the elements



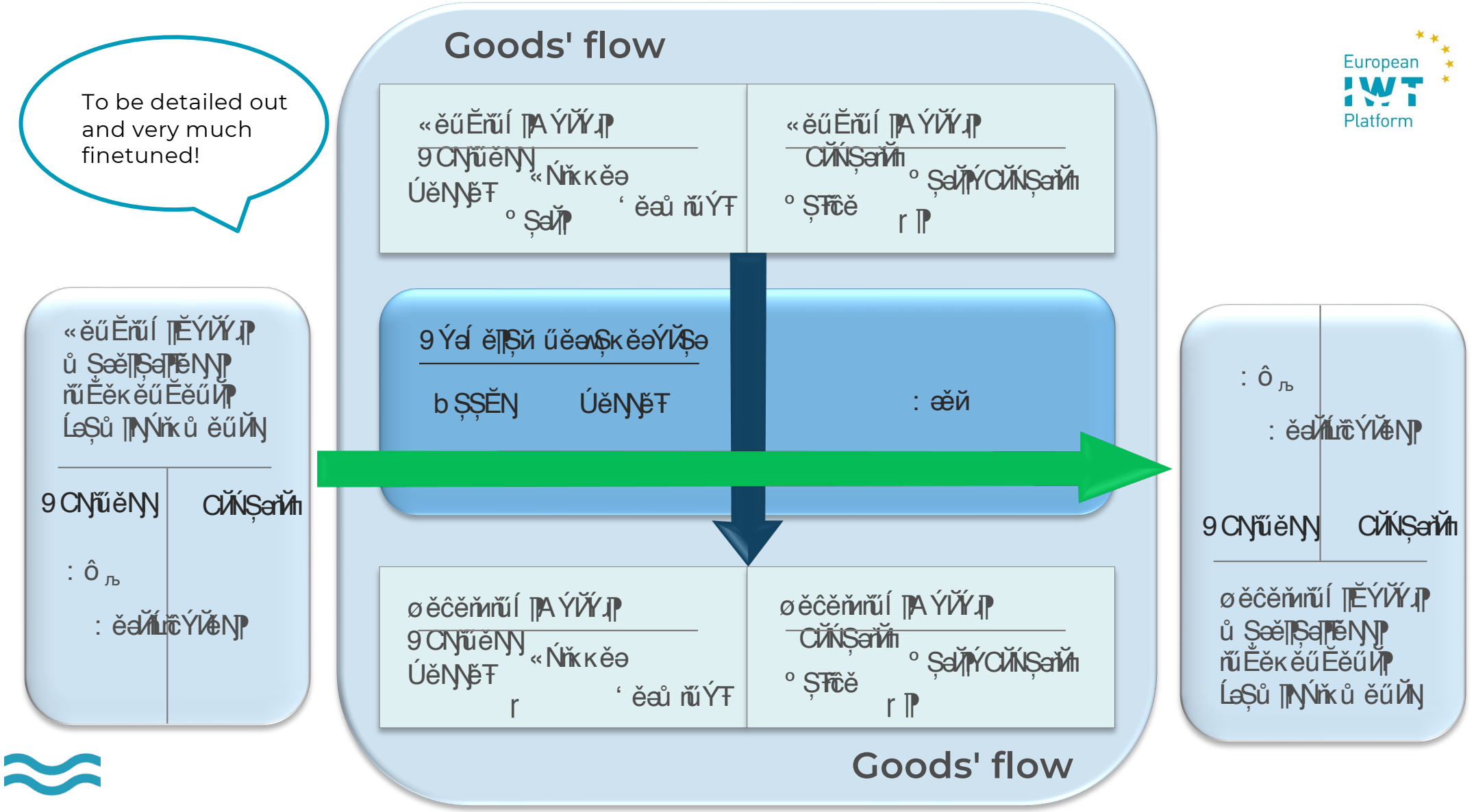
From “As Is” to “To be”

Preference to start from business processes …

…. connect this with what has been shown on slides here above

…. draw the “road ahead” which could turned in a “Gantt Chart”

…. provide proposals for actions and measures


To be detailed out and very much finetuned!
Goods' flow
Goods' flow
European
IWT
Platform

Looking from another angle..

What is on which/whose agenda and could be of help

Digital Connectivity		NAIADES	DTLF	DINA	ALICE	CESNI	WATERBORNE	TEN-T	Horizon/CEF
Crew	Vessel								
	Authority								
	Environment								
	Freight								
	Infrastructure								
	Vessel								
Freight	Authority								
	Environment								
	Freight								
	Infrastructure								
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Vessel	Authority								
	Environment								
	Freight								
	Infrastructure								
	Vessel								
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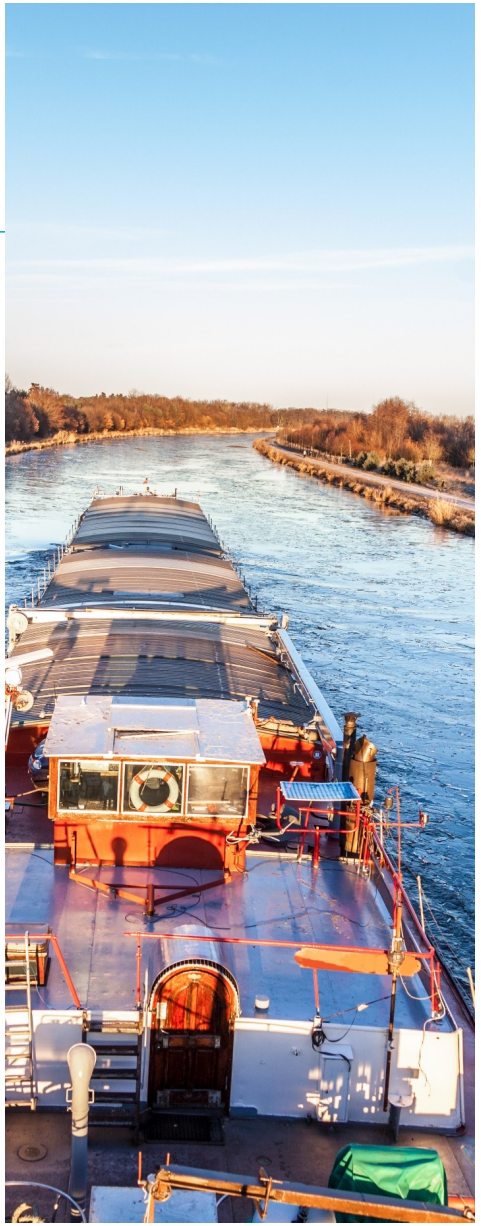
Next Step

1. Day of Telematics in NL and Digitalisation Committee of EU-IWT-Platform
   - Present all this to barge owners/operators and ask their view, support, validation …
2. As well as finetuning
   - Pages 3,9,10,13,14
   - Pages 17 & 18 of P3 document and link it with pages 3,9,10,13,14
3. And bring it all together to be presented in 3/2023



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