



ECCONET ADAPTATION WORKSHOP

Date: 2 November, 2011

Location: Vrije Universiteit Amsterdam (VU), De Boelelaan 1105, room 12A12 (12th floor, A-wing of the main building)

Participants

ECCONET CONSORTIUM

Institute

TML

TML

via donau

NEA

NEA

FUCaM

BfG

BfG

DST

VITUKI

VU-FEWEB

Participant

Christophe HEYNDRICKX

Tim BREEMERSCH

Juha SCHWEIGHOFER

Barry UBBELS

Martin QUISPEL

Michel BEUTHE

Imke LINGEMANN

Bastian KLEIN

Berhold HOLTSMANN

Gabor BALINT

Frank BRUINSMA

STAKEHOLDERS

Port of Antwerp

Els VAN DUYSE

Port of Antwerp

Eric DE DECKERE (**excused**)

Helogistics/EDDSG

Tibor MATYAS (**excused**)

Imperial De Grave

Peter KELLY

Central Commission for the Navigation of the Rhine (CCR-ZKR)

Hans VAN DER WERF

EVO

Rink Jan SLOTEMA (**excused**)

TataSteel

Jaap JONKER

Vliegasonie

Erik BACKER VAN OMMEREN

Cargill	Hugo VAN VESSUM
Schuttevaer Internationaal, Vereniging Scheepsbevrachters en Logistiek dienstverleners Binnenvaart (VSLB)	Martin VAN DIJK
Rijkswaterstaat Dienst Verkeer en Scheepvaart	Bas TURPIJN
TNO	Tsjitske Groen

Agenda

Time	Subject	Speaker(s)
10:25 – 10:30	Welcome and introduction	Christophe Heyndrickx, TML
10:30 – 11:00	Navigation conditions on the waterway network	Imke Lingeman, BfG Gabor Balint, VITUKI
11:00 – 11:30	Kennis voor Klimaat: introduction and main results	Tsjitske Groen, TNO
11:30 – 12:00	Discussion round: How do you perceive the future of the inland waterway transport mode?	Christophe Heyndrickx, TML
12:00 – 12:30	Fleet and operation adaptation measures	Berthold Holtmann, DST
12:30 – 13:30	<i>Lunch</i>	
13:30 – 14:00	Infrastructure measures	Juha Schweighofer, Via Donau
14:00 – 14:30	Improved prediction measures	Imke Lingeman, BfG
14:30 – 15:00	Results from questionnaires	Frank Bruinsma, VU
15:00 – 15:30	Assessment strategies of adaptation	Martin Quispel, NEA
15:30 – 15:45	Coffee break	
15:45 – 16:15	Discussion round: What are the possibilities of adaptation? Do you think there is a need for adaptation in the future?	Frank Bruinsma, VU
16:15 – 16:30	Evaluation of workshop Concluding remarks	Christophe Heyndrickx, TML All

Minutes

Comments to presentation 1: “Navigation conditions on the waterway network”

Hans Van Der Werf: annual or even multiday average low water levels are of less interest to the industry than actual lowest water levels, since these are the ones that determine if navigation is possible. Concerning ice, it is known this is not really a problem for the Rhine. For the Danube, it would be interesting to know how many days navigation actually was/will be suspended due to ice formation.

Comments to presentation 2: “Kennis voor Klimaat: introduction and main results”

“Kennis voor Klimaat” consisted of multiple subprojects. The INCAH project focussed on general infrastructure and the interaction between different systems. Another project worked solely on inland waterway transport. It included a review of adaptation measures in the area of logistics, fleet, river management.

Juha Schweighofer asked about the probability of the W+ scenario as applied within Kennis voor Klimaat. Bas Turpijn replied that a number of possible scenarios were studied, of which W+ was the most extreme

Discussion 1: future of IWT and preparation for climate change

Hans Van Der Werf: the climatological/hydrological study has shown that effect on transport conditions will be relatively low, and definitely smaller than the logistic changes the sector is facing (integration). In any case, it should be clear that there is a difference in investment strategy for IWT, where a ships lasts between 25 and 80 years, and in road transport, where the lifetime of a truck is generally no more than 10 years.

Imke Lingemann wants to know, in the context of future work on improved prediction methods, what the modalities for prediction need to be to be useful to the sector, in terms of bandwidth, degree of uncertainty, planning horizon,....

Peter Kelly comments that water levels are followed up upon on a daily basis. Martin Van Dijk adds that shippers prepare themselves for problems in navigation now and in the future. The key questions are: what happens when navigation is not possible for a certain amount of days? (Short term adaptation) What if in the future the number of low water days increases dramatically? (Longer term adaptation)

An aspect to consider is that there is a seasonality in the type of goods transported over the course of a year (agricultural products definitely), so not all shippers may be impacted in the same way.

Hugo Van Vessum refers to the current prediction system (Elvis?) which works well up to 5 days in the future, but is more often wrong than right for long term predictions. He continues by saying that an advantage of IWT is its flexibility, certainly when compared to rail. For IWT, transport can often be found on the spot market, while rail has to be booked months in advance. When prediction is improved or reliability of IWT decreases because of low water, shippers may indeed make the transition to other modes in a more consistent manner, or increase their storage capacity.

LUNCHBREAK

Presentation 3: “Fleet and operation adaptation measures”

Presentation 4: “Infrastructure measures”

Presentation 5: “Improved prediction measures”

A handout is distributed to stakeholders in which they can add their wish list for a water level prediction tool.

Presentation 6: “Results from questionnaires”

There appears to be a non-logical connection between the amount of stock kept by companies using IWT and the amount of days of suspension of navigation they indicate as being problematic to their processes. Even with a stock of more than a couple of weeks, a 10 day suspension could be a problem.

Presentation 7: “Assessment strategies of adaptation”

Discussion 2 on adaptation measures for IWT

Jaap Jonker starts out by explaining the apparent discrepancy between days of stock and days when suspension of navigation is problematic: total storage capacity is for all business. The relevant space for business dependent on IWT is smaller, so the question was too general. He then comments that adaptation will be a problem for service providers, in this case ship owners. Shippers usually have contracts of 1-3 years, while the purchase of a ship a multi-decade commitment/risk.

Peter Kelly adds that a lot will depend on the state of the economy when low water levels occur. When business is good, shippers are willing to absorb the cost that comes with low water (as was the case in 2003). A dry period in an economic crisis, as it occurred in spring of 2011, presented much bigger problems.

On modal shift: policy makers have thought about this for 10 years. Only, the market has not yet picked up on this.

Hugo Van Vessum continues on the same topic by explaining the issue faced by shippers. Cargill typically uses IWW and rail for inbound logistics, and trucks for outbound. Policy makers including municipalities are pushing for a lower use of trucks and better efficiency in reverse logistics, i.e. not sending back empty ships/train, but using those to transport final goods. Large investments would be needed to achieve this. However, the driver for this would not be cost-efficiency but environmental regulation – which is not a bad thing per se.

He comes back to the question of improved prediction: in many logistic processes (JIT), speed is not the main issue, but reliability is. Moving storage is cheaper than land storage, but the goods still have to be there when they are needed.

Op topic of low water surcharge, he states that shippers start paying it at WL of 2m50, while extra costs are already incurred by operators at anything lower than 3m50 – but the market is not willing to pay for that.

On the topic of infrastructure, there is less focus. Jaap Jonker claims that ‘ideally the entire Rhine should be canalized’, but this is not possible in reality. Els van Duyse reacts that canalization is not a real solution, as it would make high water more problematic. On this, both Juha Schweighofer and Bastian Klein refer to the different types of canalization that are possible. In fact, when designing groins, one can take this into account. The groin will only ‘push the water to the inside’ when it is low and act normally during higher water. The point is raised that land use also affects water levels: in periods of heavy rain, the sewage system in urban

areas will quickly drain all water to rivers (the soil cannot act as a buffer). Gabor Balint explains this is mainly an issue in small catchments.

Frank Bruinsma reacts that, given the situation, the investments in infrastructure do not look to appealing. Peter Kelly reacts that the IWT sector already has quite some problems. Given the current results on climate change, it would probably be better just to cope with the variability of the weather as it is. Hugo Van Vessum refers to the high costs of adaptation. Both investments in infrastructure (canalization of Rhine for example) or renewing the fleet are very expensive, and seem excessive based on the projections made in ECCONET. Modal shift is more likely to occur, should water levels not allow IWT on a reliable basis.

Peter Kelly comments on technological investments driven by environmental legislation. The pressure is much higher in the road sector, so breakthroughs are more likely to happen there – which could jeopardise the claim of IWT and rail to be a more environmentally friendly alternative.

Erik B. Van Ommeren refers to the results on adaptation as ‘neither good nor bad’. We see that adaptation to climate change is not very urgent at this time, but that the situation on longer term is definitely not going to improve. However, there is also good news, there is a very large capacity of IWT to cope with variable weather circumstances. He also refers to the flexibility of shippers, often they have ‘flexible’ coping strategies to deal with this type of situations.