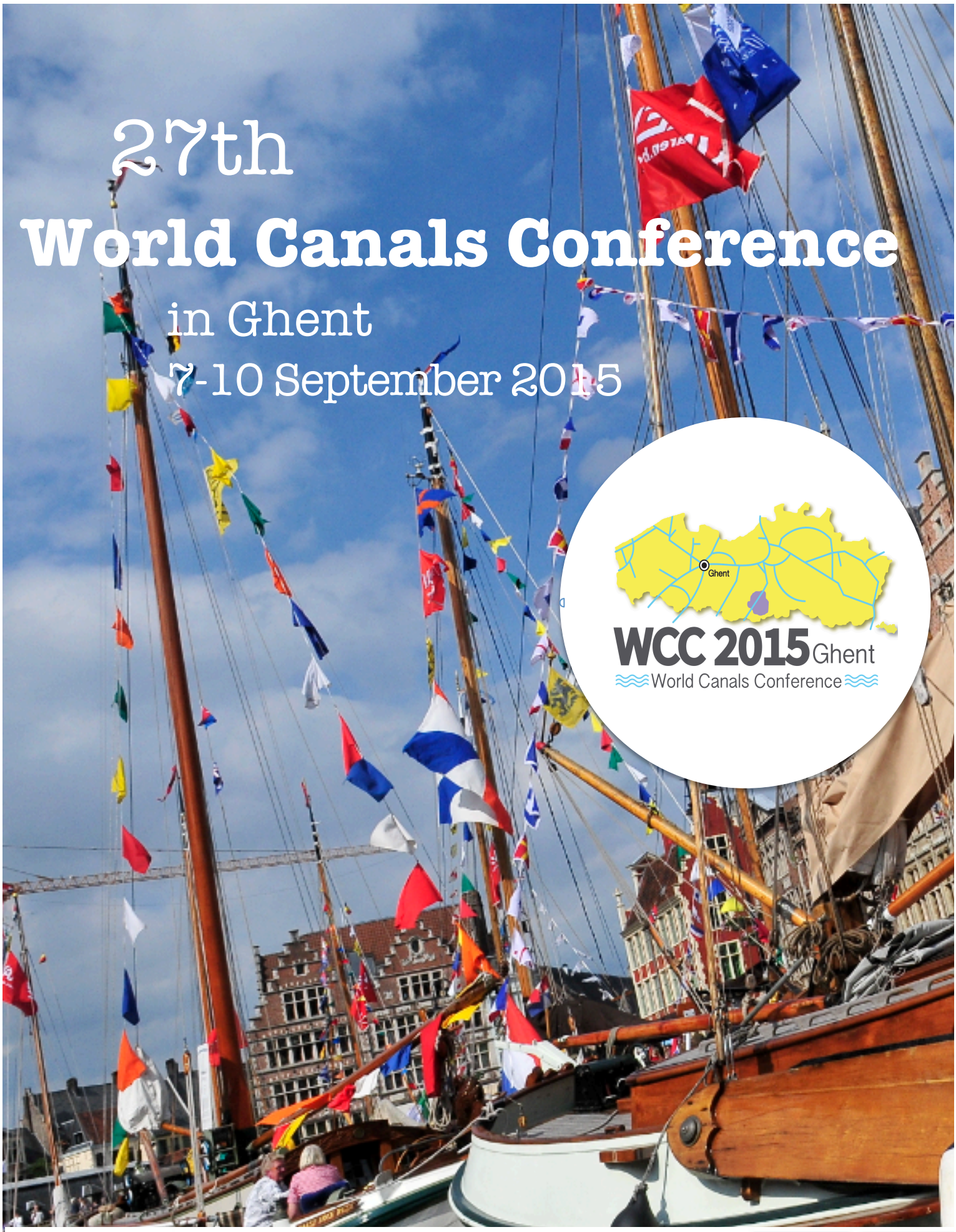


27th World Canals Conference

in Ghent

7-10 September 2015

WCC 2015 Ghent

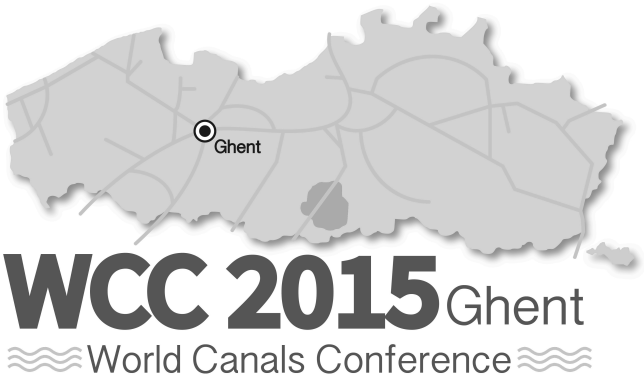
World Canals Conference

NAUTI V

ABSTRACT BOOK

ghent: so much city

27th World Canals Conference



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Abstract Book

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ghent: so much city

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27th World Canals Conference

Theme 1:
Waterways in International Perspective

WCC 2015 Ghent
World Canals Conference

Waterways in Ghent in historical perspective

Les cours d'eau de Gand à travers l'histoire

Geert Van Doorne

RÉSUMÉ

Je ne vous fatiguerai pas avec les innombrables tentatives des Gantois pour accéder à la mer océane. Cela résulterait en une énumération d'avant-ports, de canaux maritimes et d'espaces industrialisés somme toute assez banals. Je m'intéresserais plutôt à la question pourquoi et comment la mer est venue à Gand. La réponse en est dans la cité même.

Toutefois, la première rencontre entre citoyens et marins fut loin d'être amicale. En 851, les Normands ou Vikings remontaient l'Escaut et détruisaient la magnifique abbaye de Saint-Bavon à Gand. Les ruines vénérables du monastère restent aujourd'hui l'un des endroits les plus romantiques de la ville, tout près de son noyau primitif et du port de plaisance actuel nommé 'portus Ganda'.

La fin des invasions et les succès des croisades amenèrent une véritable renaissance dans le nord-ouest de l'Europe avec l'apparition des cathédrales gothiques et d'un réseau de villes commerçantes où la nouvelle culture bourgeoise du libre échange se fit jour. C'est alors qu'on voyait les premières galères méditerranéennes dépasser le Cap Finistère et s'engager dans la Manche. Alors aussi, Gand et la Flandre deviennent le principal centre de production d' étoffes laineuses. Située au confluent de quatre rivières, l'Escaut, la Lys, la Liève et la Moere, la ville de Gand constituait le portail d'entrée depuis la mer océane dans l'arrière-pays européen. L'opulence créée par le commerce actif et l'industrie du textile nous a légué jusqu'à ce jour le vieux-port du Quai aux Herbes avec ses façades prestigieuses, le Château des Comtes et l'Agneau Mystique, nombre d'églises et de cloîtres superbes et plus de cent cryptes et caves, les entrepôts de jadis, dans les rues du centre-ville.

Après la découverte et la conquête du Mexique et des autres pays d'Amérique, plutôt des Indes Occidentales, sous l'égide de l'empereur gantois Charles-Quint, notre ville a participé au trafic transatlantique grâce au canal du Sas et au canal de Bruges et d'Ostende. Ce dernier est surtout célèbre par 'la barge', coche d'eau au bord duquel le roi Louis XV a fait le voyage de Bruges à Gand en 1745. Pendant la révolution industrielle, Gand est devenu le majeur port cotonnier du continent européen. Les Vieux Bassins qui datent de cette époque fiévreuse sont maintenant en cours de rénovation.

ABSTRACT

My starting point is not the classical question: why and how did Ghent strive after an issue to the sea? I prefer the question inside out: why and how did the sea come towards Ghent? The answer to the first question offers only images and stories about maritime canals and forward-ports on the coastline. The second question finds its answer in the old city it selves.

However, the first contact between the citizens and the seamen was not a happy one. In 851 the Normans or Vikings sailed upstream the river Scheldt and destroyed the magnificent cloister of St Baaf at Ghent; nowadays the ruins of this abbey form still the most romantic site of the town, nearby the place of its origin and the actual marina "portus Ganda".

After the end of the invasions and the successes of the crusades, a real renaissance was going on in the northwest of Europe with the birth of the gothic architecture and a network of cities whose middle class elaborated a new kind of economy based on trade and industry. It was then that the first Mediterranean galleys passed Cape Finistere and entered the British Channel. Then as well Ghent and Flanders grew up as the greatest production centre of wool textiles. Situated on the confluent of the Scheldt and the Lys, the Lieve and the Moere, Ghent was the ideal entrance to the continental markets. The then prosperity is testified by the prestigious buildings on the old inner-city harbour of the Graslei, by the impressive Castle of the Counts, the numerous and beautiful churches and monasteries, and more than hundred crypts and cellars in the medieval city centre.

At the time of the great discoveries and the conquest of America, Ghent participated on the transatlantic adventure by two newly dug sea canals: the so-called Sassevaart and the Brugse vaart. The last is well-known by its daily public boat "de barge", described by William Makepeace Tackeray in his novel *Vanity Fair*. The industrial revolution gave Ghent the greatest cotton-port of the European continent. The old docks which commemorate these activities are actually renovated.

The Seine-Scheldt project

Le projet Seine-Escaut

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RÉSUMÉ
Waterwegen en Zeekanaal NV (W&Z) est l'autorité flamande responsable de la gestion des rivières et canaux navigables dans la partie occidentale de la Flandre. Dans un effort continu d'améliorer et de renforcer ce dense réseau fluvial et de promouvoir son utilisation par la navigation intérieure, Waterwegen en Zeekanaal, ensemble avec ses partenaires français et wallons, s'est engagé ces dernières années au développement et à la réalisation du projet Seine-Escaut. Ce projet européen fluvial envisage de créer une liaison fluviale à grand gabarit entre les bassins de la Seine et de l'Escaut, supprimant un important goulet d'étranglement pour la navigation intérieure sur le corridor européen multimodal Mer du Nord – Méditerranée. En Flandre, le projet est déjà en pleine cours et se concentre principalement sur l'axe dite de la Lys, formant la liaison directe entre la frontière française et la ville de Gand. Cependant, une attention particulière sera aussi donnée à l'amélioration des voies hydrauliques avoisinantes et aux connexions avec les ports maritimes flamandes. En outre, à part des mesures infrastructurelles, un important programme de restauration rivière sera implémenté, améliorant la qualité écologique, récréative et paysagère de la rivière de la Lys et de sa vallée. Avec cette approche de projet intégrée, W&Z espère d'encourager et de souligner l'utilisation multifonctionnelle et durable de ses voies navigables, les rendant une place centrale dans le développement économique et sociale de la région.

ABSTRACT
Waterwegen en Zeekanaal NV (W&Z) is the Flemish waterway authority responsible for the management of the navigable rivers and canals in the western part of Flanders. In a continuous effort to further improve and strengthen this dense waterway network and to promote its use for inland navigation, Waterwegen en Zeekanaal, together with its French and Walloon counterparts, has in recent years been fully committed to the development and realization of the Seine-Scheldt project. This European waterway project aims to create a large-gauge waterway link between the Seine and Scheldt basins, removing an important bottleneck for inland navigation in the multimodal European North Sea – Mediterranean corridor. In Flanders, the project is already well underway and focuses mainly on the so-called Lys axis, forming the direct link between the French border and the city of Ghent. However, due attention will also be paid to the upgrading of the surrounding waterways and the connections with the other Flemish maritime ports. Also, besides the infrastructural upgrades, an important river restoration program will be implemented, improving the ecological, recreational and scenic quality of the river Lys and its valley. With this integral project approach, W&Z hopes to encourage and emphasize the multifunctional and sustainable use of its waterways, giving them a central place in the economic and societal development of the region.

KEYWORDS
Infrastructure, TEN-T corridors, Seine-Scheldt, inland navigation, cross-border projects

Unique location of port of Ghent does not only attract thousands of inland vessels but also hundreds of inland cruises

L'emplacement unique du port de Gand n'attire non seulement des milliers de navires intérieurs mais aussi des centaines de navires de croisière intérieurs

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RÉSUMÉ
Gand est situé au carrefour européen d'importants canaux et rivières. Un vaste réseau de voies navigables lie Gand par rivières et canaux aux Pays-Bas, à l'Allemagne et au nord de la France (Paris via la liaison Seine-Nord). L'aménagement de la voie navigable entre la Seine et l'Escaut entraînera que des navires intérieurs plus grands pourront naviguer par la liaison entre le port de Gand, les Pays-Bas et la France (avec le grand marché de la conurbation de Paris et le nord industriel de la France). En Flandre, le projet se déroulera principalement via la rivière de la Lys et le Canal périphérique autour de Gand. De plus, Gand est également lié au réseau de canaux et rivières de l'Europe de l'est du Rhin-Main-Danube. Grâce à son emplacement, le port de Gand a une position unique comme centre de transbordement entre la navigation maritime et intérieure pour tout type de marchandises. En 2014, le port de Gand a reçu quelque 15.000 navires intérieurs, représentant un trafic de marchandises de 21,8 millions de tonnes (sur un total de 47,7). Non seulement les cargos intérieurs trouvent leur route vers Gand. Pendant les dernières années, le port gantois a créé la tradition que beaucoup de navires de croisière intérieurs y font escale. En une période de dix ans, ce nombre a plus que triplé. La plus grande partie vient de l'Allemagne et de la Suisse. Le nombre d'arrivées le plus élevé de tous les temps a précisément été noté pendant la saison passée de 2014. Alors un total de 266 navires de croisière a fait escale à Gand emmenant presque 29.000 passagers à Gand.

ABSTRACT
Ghent is located at the European crossroads of important inland waters. An extensive network of inland waterways connects Ghent via rivers and canals with the Netherlands, Germany and the North of France (Paris via Seine-Nord connection). Improving the waterway between the Seine and the Scheldt means that bigger inland navigation vessels will be able to make the connection between port of Ghent, the Netherlands and France (with a large market in the Paris conurbation and the industrial north of France). In Flanders the project will run mainly via the river Lys and the Ring Canal around Ghent. Moreover, Ghent is also connected to the East European inland navigation network of the Rhine-Main-Danube. Due to this location, port of Ghent takes up a unique position as a transhipment centre between seagoing and inland navigation for any type of goods. In 2014, port of Ghent received some 15,000 inland vessels, good for a cargo traffic of 21.8 million tonnes (of a total of 47.7). Not only inland cargo vessels find their way to Ghent. In the past few years, Ghent port has been building up the tradition that quite a lot of inland cruise vessels call there. In ten years' time, this number more than tripled. The larger part comes from Germany and Switzerland. The highest number of arrivals ever was precisely registered in the past season of 2014. Then, a total of 266 cruise ships arrived in Ghent bringing almost 29,000 passengers to Ghent.

KEYWORDS
Crossroads of inland waters, inland cruises, Seine-Nord connection, transhipment centre

Waterways in a cultural-touristic perspective: water recreation and tourism

Katrien Six
District manager Tourism Leiestreek

ABSTRACT

'Toerisme Leiestreek' npo was created in 2000 and reunites 28 cities and towns in the Lys area around a series of communal objectives such as determining touristic-recreational policy planning, enhance the promotion of the Lys area as touristic-recreational region. 'Toerisme Leiestreek' is financed by the provinces of Western and Eastern Flanders and the 28 towns and cities.
Most towns and cities in the Lys area are situated along a waterway. These rivers and canals are a significant binding element for the Lys area. Experience on and along the waterfront is therefore one of the central themes highlighted for the promotion of the region. The cooperation around the boat trips are the basis for creating npo 'Toerisme Leiestreek'.
In order to improve the facilities and to strengthen the promotion of the region, 'Toerisme Leiestreek' is already cooperating for a decade with the French sister organization, Lys sans Frontières, in various European projects. The Lys, also called the Golden River, is namely the 'blue guideline' in the region and connects inhabitants, tourists and holiday-makers in the French and Flemish Lys area.
The presence of water in the Lys area distinguishes our region from other tourist regions in Flanders. The rivers Lys and Scheldt constitute the 2 major recreational axes.
Although sailing tourism is rather a niche [market] within the tourist and recreational offer in the Lys area, it still remains a significant element to the organization 'Toerisme Leiestreek' (Tourism Lys Area). Both passenger navigation as well as individual pleasure cruising are included in the promotion of the region.

Introduction
'Toerisme Leiestreek' npo was created in 2000 and reunites 28 cities and towns in the Lys area around a series of communal objectives such as determining touristic-recreational policy planning, enhance the promotion of the Lys area as touristic-recreational region. 'Toerisme Leiestreek' is financed by the provinces of Western and Eastern Flanders and the 28 towns and cities.
The Lys region is an extensive area with a considerable diversity. It is also a region that crosses the borders of our province. Yet, there is one common denominator, i.e. the water, an element that is highlighted during every action or initiative undertaken by 'Toerisme Leiestreek'.

Water recreation and boat trips
Since the end of the nineties, the provinces of West Flanders and East Flanders have played an active role in enhancing the facilities for individual pleasure cruising and its promotion.
Next to the efforts with respect to individual pleasure cruising, the tourism offices in the Lys area have also initiated since the end of the nineties a detailed programme for passenger navigation, provided in the form of organized boat trips during the summer months. These boat trips allowed a large audience to discover the region from a different perspective, namely from the waterways. Owing to the organization of these boat voyages, the links between the towns and the cities in this region was strengthened.
This cooperation as regards boat trips in the Lys region entailed in the creation of the 'vzw Toerisme Leiestreek' (npo Tourism Lys Area) in 2000. Without these boat trips, Tourism Lys Area would probably not even exist. Owing to this product, we have come to grips with the tourist regional cooperation in the Lys area. Intermunicipal cooperation about a concrete product such as the boat trips reinforces the mutual cohesion and clearly demonstrates the surplus value of a regional approach.
The boat trips in the summer season attract a loyal audience, but it can be extended by contacting smaller shipping companies with a varied offer for couples, a small circle of friends or families. Such private-public cooperation can entail in a surplus value for both parties and help us to upgrade the significance of the Lys Area as a sailing region.
As a first step, we have published the brochure 'Pleziervaart en waterpret in de Leiestreek' (Pleasure cruising and water fun in the Lys Area) that we presented this spring. In recent years, there was a need for a comprehensive offer with respect to recreation in, on and along the water. This new brochure is an answer to this necessity. Owing to this publication, visitors possess a detailed offer of

readily available water recreation. Beside a survey of the various shipping companies, it also includes a wide range of watersports opportunities and open air swimming pools. Evidently, the organized summer boat trips are also mentioned in this brochure.
However, tourism along the water cannot be forgotten In the first instance, we are thinking about cycling on the towing paths along our rivers and canals. The 'Fietsnetwerk Leiestreek West' is a bicycle network boasting the largest percentage of carless cycling paths in West Flanders, of which the towing paths constitute a significant part. Flemish people are Burgundians, wishing to interrupt their bicycle tour for a beverage and a snack. In this respect, the wide array of 'terraces at the waterside' in our region are a major asset. Some of them are also renting boats and are equipped with a proper jetty.

European projects
In the past, we participated as a partner or as a project leader in some European projects in view of highlighting the assets of water recreation.
Largely owing to European subventions for tourist projects, we were able to put the Lys Area on the map as a tourist region. 'Toerisme Leiestreek' on the one hand acting as a Flemish partner, and 'Lys sans Frontières' as its French counterpart on the other hand, have cooperated for over a decade to the valorization of this region.
It started with an INTERREG III project, that took place between 2000 and 2007 and was followed by an INTERREG IV project, from 2008 up to and including 2014.
Between 2008 – 2011, during the first phase of the INTERREG IV project 'Leiestreek, van bron tot monding' (The Lys Area, from source to estuary), a total sum of € 10,5 million was invested in the tourist and recreational offer in the Lys area and the promotion of the region. € 3,9 million of this budget was provided by the European Union via the INTERREG programme for the region France - Wallonia – Flanders.
In concert with the partners in the French Lys Area, 'Toerisme Leiestreek' and individual towns and cities in the region, projects were being set up as regards patrimony, gastronomy, cycling and walking and river tourism. Westtoer was the project leader of this venture.
During the 2nd phase of the project 'Leiestreek, van bron tot monding' (The Lys Area, from source to estuary), 'Toerisme Leiestreek' intended to make a continuation of this cross-border initiative. This was achieved with a project budget of nearly € 2,4 million, including € 1,15 million European subventions during the period 2012 - 2014.
The deployed means comprehended both promotional campaigns as well as infrastructure operations. The first aspect cannot be achieved without the second aspect.

Some examples of various concrete European projects were:

1. De Vlaamse Leiestreek (The Flemish Lys Area)

- The construction of a main jetty, access walkaway and access tread in the Kloron marina at Avelgem.
    - The construction of a jetty in the centre of Harelbeke.
    - The construction of a jetty in Zwevegem.
- An extension of the number of mooring places at the marina in Waregem and some improvements concerning the infrastructure.
- The construction of a floating pontoon for small and middle-sized vessels near the Tobacco Museum in Wervik.
    - The construction of a new jetty for the former Pumping building in Bossuit.
- The reconstruction of the Leiedam in Deinze was a sizeable project in the theme of water recreation. In the scope of an urban renovation project, a mooring and a promenade were erected near the Sint-Poppoplein.
- Amelioration works were achieved at the transient port in Kortrijk, including information panels in four languages.
- The town of Sint-Martens-Latem has initiated preliminaries in view of amelioration works at the banks of the Lys.
- Toerisme Leiestreek organized boat trips during the summer on rivers and canals in the region. The comprehensive programme included trips which brought the participants to France. There were also voyages combining sailing and bicycle tours.
- So as to mutually enhance the cooperation with the private sector and between various tourist actors, 'Toerisme Leiestreek' initiated the new concept of 'speed dates'. In 2013 and 2014, various speeds dates were held, having as main objective to allow actors from the public and private tourist sector to gain improved acquaintance and promote closer cooperation.

The participants originated both from the Flemish as well as the French Lys area, and the programme boasted both thematic as well as geographic speed dates. Some of the meetings were attended by over 40 persons, including boat and bicycle lessors, restaurants, hotels, B&B's, npo's, recreational domains, guide associations,… The speed dates entailed in concrete results, such as the Ghent-based boat rental company MINEVA which provided a selection of regional specialties to boat renters, in cooperation with Brewery Gruut, also located in Ghent.

- In order to highlight the new offer, special attention was paid to promotional activities. Thus, 'Toerisme Leiestreek' participated in some specific fairs, both at home and abroad: the Belgian Boat Show in Ghent, the International Boat Show in Nieuwpoort and Boot in Düsseldorf.
  The boat itinerary 'Leie en Schelde' (Lys and Scheldt), comprising a survey of the waterways, marinas and jetties in the area was designed in a joint cooperation with 'Toerisme Oost-Vlaanderen' and 'Toerisme Gent'.
  Furthermore, various press conferences and trans-border press trips were being held, paying particular attention on water recreation. These voyages sailed on the Oude Leie between Sint-Martens-Latem and Deinze.

2. De Franse Leiestreek (The French Lys Area)

- The Haverskerque marina was entirely renovated, including new pontoons and a pedagogic pool. The recent extension allows ships from over 16 meter length to enter the marina.
- Also in Haverskerque, the 'Communauté de Communes Flandre-Lys' has created a Port Master's Office, equipped with state-of-the-art technologies. The service for yachtsmen of pleasure crafts was improved, providing installations for water, electricity, sanitary facilities, small repair sets and tourist information.
- In 2003, 'Lys sans Frontières' has made new signposts for yachtsmen of pleasure crafts. Over 80 signposts were set up between Aire sur la Lys and Halluin.

- The annual Lys festivities have repeatedly put 'The Golden River' in the spotlights in the various towns and cities of the French Lys area.

In brief, water tourism has been a constant source of attention in the activities deployed by 'Toerisme Leiestreek', since its creation in 2000 until now, and as much as possible in cooperation with our French partners to keep track with the international context.

The Central Commission for navigation on the Rhine (CCNR) at 200 - Towards a pan-European waterway-system for the 21st century

Yvo J.D. Peeters, MA, Med, MSc, LLED.
Former Head of Foreign Policy Unit of the Waterways Administration of Flanders

ABSTRACT

The CCNR was created by the Treaty of Vienna which ended the Napoleonic Wars in 1815. It is as such the oldest international Institution of the World.
It has contributed tremendously in the past two centuries towards regulations, especially for traffic and safety on Europe's main waterway.

In the second half of the 20th Century of the main natural waterways of continental Europe were linked by Canals, partiarlarly so the Rhine and Donau, which could prefigurate a larger system.

After 1991, the collapse of the socialist dictatorships opened new perspectives for a Pan-European system. In 2001 and 2005 two major conferences initiated by the Netherlands were held to that aim.
Since then the process has lost some of its momentium.
The soon to be realised Seine-Schelde link may well be the opportunity to give it a boost.
The most realistic option is to extend the "Rhine-System", adapted where necessary, to the whole European Waterwaynetwork.

Inland Waterways development in Wallonia within a European perspective

Le développement des voies d'eau intérieures en Wallonie dans une perspective européenne

Yvon Loyaerts
Service public de Wallonie

RÉSUMÉ

La Wallonie occupe la moitié sud de la Belgique. Son réseau fluvial, long de 451 km de voies navigables, est constitué de voies d'eaux naturelles canalisées (la Meuse et l'Escaut principalement) mais aussi d'importantes voies artificielles (Canal Albert, Canal du Centre, Canal Bruxelles-Charleroi, …). Modernisé progressivement au fil des siècles et tout particulièrement lors du 20° siècle, il intègre la Wallonie dans le réseau européen en connexion avec les régions et pays limitrophes (Pays-Bas, France, Allemagne).

Au sortir de la seconde guerre mondiale, un ambitieux plan de modernisation a permis de porter le réseau wallon aux standards européens de l'époque (Classe IV – Bateaux de 1350 t). Le programme a nécessité la rectification ou l'élargissement de plusieurs canaux et rivières et la construction de nombreuses nouvelles écluses. Il s'est achevé en 2002 par l'ouverture des ascenseurs à bateaux de Strépy-Thieu, dans le Hainaut.

Actuellement, l'ambition nouvelle est de porter l'ensemble de la dorsale wallonne au gabarit Va (2000 t), afin de relier entre eux les bassins de l'Escaut et la Meuse, eux-mêmes voyant leurs capacités augmentées respectivement jusqu'à 4500 et 9000 t.

Par cette politique volontariste, la Wallonie entend s'inscrire dans la stratégie européenne des corridors multi-modaux, en particulier le corridor Mer du Nord – Méditerranée au sein duquel est repris l'ensemble du réseau wallon à grand gabarit. La programmation, définie e.a. en relation avec le projet Seine-Escaut, est prévue jusqu'en 2025-30.

ABSTRACT

Wallonia is the southern half of Belgium. Its 451 km long inland waterways network is made up of canalised rivers (mainly the rivers Scheldt and Meuse) but also of important man-made canals (Albert Canal, Canal du Centre, Canal Brussels – Charleroi,…). Modernised step by step all along the centuries, and mainly during the previous one, it puts Wallonia within the European network, connected with the neighbouring regions and countries (Flanders, France, the Netherlands, Germany).

After WWII, an ambitious upgrading programme brought the Walloon network to the European standards at the time (Class IV – 1350 t). The programme needed the rectification or the enlargement of several rivers and canals and the building of some new locks. It was achieved in 2002 when the boat lifts of Strepy-Thieu, close to city Mons, were brought into service.

Nowadays a new programme has been defined : to bring the whole Walloon waterways backbone till class Va in order to better link both Scheldt and Meuse basins where the capacity will simultaneously be raised till 4500 and 9000 t respectively.

Thanks to this voluntary policy Wallonia plans to be fully integrated within the European multi-modal corridors strategy, more specially the North Sea – Mediterranean corridor wherin the whole Walloon network is included. The time schedule has been defined till 2025-2030, in relation with the Seine – Scheldt project.

Why and How to keep small canals alive. For example in The Netherlands. How to re-use them.

Nederland Kanalenland? Land van kanalen: Waterways-Ways of Value.(c).

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ABSTRACT

Duizenden kilometers kanalen kent Nederland. In 2014 komt de grootscheepse omlegging van de Zuid Willemsvaart in Brabant(Zo-NL) tot stand. Het Canal du Nord, begonnen onder Napoleon tijdens de bezetting van de Zuidelijke Nederlanden werd nooit voltooid. Een kanaal op het eiland Marken werd wel ontworpen maar niet gegraven. Van de rivier de Rijn werd een kanaal gegraven om een directe verbinding tussen de Rijn en de Zuiderzee te maken. Slechts sporen in het landschap en vergraven sloten bleven over. In Nederland bestaat geen overzicht van door eeuwen heen, verlaten kanalen. Geldgebrek, oorlogen, geschillen tussen koningen en graven en bisschoppen, kortom de eigenaren van gronden lagen meestal ten grondslag aan het verlaten van noodzaken om het"" voorgenomen "'kanaal"" af te kunnen maken en haar functies voor waterhuishouding, transport van personen en goederen te kunnen vervullen. Lost Canals in Landscape. Hardly to find,hardly to Re-Use. In 2014 verschijnt een belangrijk artikel van Arjan Heijdra e.a , Rijkswaterstaat. Met als titel"' Resilience of Waterways systems-an explorative study of the American, Dutch and German waterway systems. Opnieuw worden vanwege kosten, veroudering van voorzieningen, sluizen en kaden, kanaal profielen,ontwikkelingen in beroepsvaart, kanalen tegen het licht gehouden.
Nieuwe Lost Canals komen er weer aan.
Functie verlies vanwege economische ontwikkelingen of oorlog, wijzigingen van regiem zijn van alle tijden. Een kanaal zonder functie is een bak met water in het landschap.
Rond 1800 moest Het Canal du Nord Brussel met de Rijn verbinden.156 km lang. Financering zou plaats moeten vinden via overheidsmiddelen. In 1810 werden de werkzaamheden gestaakt. Later onder bewind van Koning Willem 1, de Kanalen koning werden de werkzaamheden hervat, maar dat kanaal zou nu de Zuid-Willemsvaart worden.Nu weer onderdeel van een belangrijke route voor de beroepsvaart en de recreatievaart voorzeningen"'ontwikkeld als ""Willemsroute"". Vanuit marketing en economische, meer recreatieve belangen voor de Provincies Limburg(Belgie en Nederland).
Nederland kent 3 Willemsvaarten.Waarvan 2 in gebruik, waarvan 1 in Zuid Nederland en Belgie en een het Noord Wilemskanaal in Drenthe,De vaarverbinding Hoofdstad Assen met hoofdstad Groningen. En een…. Lost Canal in Overijssel- Stad Hoofstad Zwolle. Het kanaal is afgesloten en deels gedempt vanwege aanleg van een verkeersweg en verworden tot een smalle sloot en aan het einde , bij de toegang tot de rivier de Gelderse Ijssel een prachtig authentiek vol gerestaureerd sluizencomplex. Innovatief met in een sluis een gemaal en de andere sluis voor recreatievaart. Echter doorvaart verboden. Een voortreffelijk voorbeeld van bevoordeling van autoverkeer en ontsluiting van een stad dmv het dempen van een vaarweg van formaat met een hoge cultuurhistorische en potentieel recreatieve en economische waarde.
Nederland kent talloze Lost canals, vanwege functie verlies, veranderd landgebruik,wijzigingen in de landbouw toename landverkeer, groei van transport over water en groei van schepen en aanpassingen aan kanaalprofielen. Evenzo Lost Canals vanwege bestuurlijke aanpassingen vanuit de Rijksoverheid, Provincies en Waterschappen/Gemeenten. Feitelijk een voortdurend proces, waarbinnen de toe te kennen waarden aan kanalen, grote en kleine kanalen, vaar-en waterverbindingen afwezig zijn in vastgelegd beleid en wetgeving op landelijk en lagere niveaus. Kanalen, samenhangende voorzieningen van bruggen, sluizen, kaden, loswallen en jaagpaden, bebouwing en fabrieken en landschap zijn onbeschermd als cultuurhistorisch goed. Er is geen landelijke organisatie die dergelijke kanalen in hun ""afstotings"'proces"' nog over nemen kan.
Voorbeeld 1: Her-benutting Apeldoornskanaal van Koning Willem 1.
Voorbeeld 2: Her-aanleg van kanalen tussen Groningen en Duitsland met de in 2013 geopende prachtige en unieke nieuwe vaarverbinding: Het Koning Willem Alexander kanaal, ook wel KWAK-kanaal in de volksmond zo genoemd.
Keert het TIJ: Wordt het Eb of vloed?

In 1976 lijkt het tij te keren, Eb was het al: ANWB, Bond Heemschut en het Koninklijk Nederlands Watersportverbond publiceerden een eerste overzicht van de waarden van kanalen en in het bijzonder oude kanalen in steden en landschap. De brochure 1976 daaraan ten grondslag, was baanbrekend. Samengesteld op basis van uniek onderzoek van Ing. E.J.W Gratama van Andel en heeft uiteindelijk mede geleid tot het medio 1995 oprichten van de Landelijke Organisatie Stichting Recreatie Toervaart Nederland(SRN), nu in 2014 omgevormd tot Waterrecreatie Nederland. De brochure was baanbrekend: Ook voor mijzelf, eigenaar van een oud te restaureren 24,50 lang, bijna 5 meter breed meter voormalig Noord Gronings gemotoriseerd zeil- vrachtschip. Oude kanalen bevaren leek de grote vakantie wens. De eerste ontwikkelde Turfroute van Nederland werd bevaren evenals andere te ontdekken kanalen, die veel vaker gesloten waren dan op de waterkaart stond aangegeven. Frankrijk lokte. Canal du Nivernais werd het doel. Alleen huishouden, studie, een oud huis en werk bleken in de (vaar)weg te liggen

Recreatie vaart komt in grote ontwikkeling vanaf de 30er jaren(1)(1930) kon met de lobby en economische maar vooral de vrije tijdsbelangen grote druk uit oefenen op overheden. Gelden werden dan ook in ruime mate besteed aan het oplossen en verminderen van knelpunten in vooral oude maar ook nieuwe vaarwegen. Geld kwam aanvankelijk van Ministerie van Landbouw en provincies. SRN, het samenwerkingsverband van overheden en belangenorganisaties heeft voortreffelijk werk gedaan. Routes werden hersteld, sluizen nieuw gebouwd, bruggen aangelegd, pleidooien en realisaties van Aquaducten mn in Friesland en recent in de Steenbergsevliet(2013).Vaarwegnormering, normering van recreatieschepen voor recreatieve vaart werd ontwikkeld. Routenetwerken werden hersteld. Vaarwegnormering werd ge -exporteert naar andere landen in telkens nieuwe Internationale Samenwerkingsverbanden. SRN was een stevige supporter van IWI. Het Friese Merenproject en haar economische en recreatieve effecten kent geen concurrentie.

Wat bleef: Gebrek aan landelijk beleid(NL) en (EU) , wetgeving en regelgeving op lager niveau voor alle overgebleven Lost Canals en nieuwe Lost Canals vanwege het doorgaande proces van functie verlies of juister, herwaardering van functies en herbestemming van oude en verouderde kanalen(dwz gegraven of vergraven kleinere waterwegen).Ook ontbrak een in IWI verband ontwikkelde algemene verklaring over de toe te kennen waarden aan waterwegen in landschap, waterkanten, steden, voorzieningen en beleving. Eerst vanuit initiatief tot het komen van de eerste Internationale Kanalen Conferentie in Nederland in 2011, kon samen met partners en deelnemers de Verklaring van Groningen WCC2011 worden voorbereidt, opgesteld en op het 24e congres aanvaard worden. Evaluatie van landelijke en internationale ontwikkelingen, die telkens tot “”Lost Canals”” leiden ontbreekt in IWI en Eu verband.

In 1984 werd de aanzet voor een dergelijk waarderingssysteem opgezet doch landelijk afgeblazen vanwege gebrek aan politieke interesse, daardoor geldgebrek voor vervolgonderzoek en implementatie van een te ontwikkelen systematiek voor het op-dan wel afwaarderen van oude kanalen en hun voorzieningen in het landschap.

Ik zal trachten aan te tonen dat een dergelijke wettelijke systeem onontbeerlijk was, is en wordt teneinde doorontwikkeling van oude kanalen en doorgaande, aansluitende vaarwegen ook met Duitsland en Belgie voor recreatie (vaart) en kleine beroepsvaart(w. o motorcharter).

-Met enkele praktijk voorbeelden. W. o Oude Winschoterdiep te Groningen en Apeldoorns kanaal in Gelderland.

-Pleiten voor daadwerkelijke implementatie Nationaal en Internationaal van de Verklaring van Groningen(WCC2011)in beleid en regelgeving /wettelijke maatregelen.

-Een eerste concept van een dergelijk systeem opnieuw introduceren.

-Pleiten voor opname van cultuurhistorie in beleid van Waterrecreatie(NL) en IWI als waarderingsfactor voor vaarwegen en het beleven ervan voor toerisme, waaronder vaartoerisme.

-Waarderen van het belang van geregelde evaluatie van ontwikkelde vaarroutes op hun daadwerkelijke economische (beloofde)impact. TW: Een(1) brug dicht(gelast) op een route, slecht gastheerschap, gebrekkig onderhoud, niet op tijd baggeren, geen op elkaar ook internationaal afgestemde bedieningstijden bij grensoverschrijdend vaarverkeer, onderwaardering van belangen van lokale economie en bewoners langs een kanaal hebben grote invloed op draagvlak, nut en noodzaak van politiek en beheerder/eigenaren van kanalen om deze verbinden ook voor langere tijd in stand te houden. Om te voorkomen dat Nieuwe Lost Canals in een permanent proces van verloedering te recht blijven komen. Of is dat onontkoombaar?

Globalising the Kelpies

Richard Millar
Scottish Canals

ABSTRACT

Scotland's canals were once the thoroughfares that stoked the fires of the industrial revolution – transport arteries that carried coal, goods and life through the communities of the nation – and their rich, 250-year-long history is tied intrinsically to that of the country itself.

The birth of the railway effectively sounded the death knell of the waterways as trade routes. Following WWI, dwindling use and the march of rail and road freight meant that the canals became more and more disused and derelict until, in the 1960s, many of Scotland's canals – particularly in the Lowlands - were filled in and replaced by motorways.

Stagnant and woefully undervalued, the canals became places of decay and danger – dark and dingy backwaters which mothers warned their children to stay away from. It would take almost 40 years and the biggest canal restoration project ever attempted in Britain to bring Scotland's canals back to life.
The £83.5 million Millennium Link project saw British Waterways – Scottish Canals' predecessor – work with canalside communities, local authorities and a committed group of volunteers and societies to restore Scotland's waterways to a navigable state for the first time in a generation. A monumental undertaking, the project saw the creation of more than 30 new bridges; the refurbishment of 32 historic locks and 38 masonry spans; the construction of nine new locks; and the creation of five kilometres of new canal. The 300,000 tonnes of silt removed during the project served as a stark reminder of the scale of undertaking and the decay that had befallen Scotland's canal network.

The centerpiece of the project, the iconic Falkirk Wheel, was – and remains – the world's only fully-rotating boat lift. A marvel of modern engineering, when the Wheel opened in 2002 it reconnected the Forth & Clyde and Union Canals for the first time in over 70 years and quickly became a major tourism destination. Today, the Wheel attracts 500,000 visitors a year and its design, named alongside the likes of the Hoover Dam as one of the most iconic of the last century by the International Federation of Consulting Engineers, is known the world over.

The worldwide success of the Wheel, which served as a platform to raise awareness of Scotland's inland waterways and a revolutionary symbol of their renaissance, whetted the nation's appetite for visionary, large-scale projects with international appeal. As a result, the next stage in the story of Scotland's canals was to be one of big ambitions – and bigger horses.

Originally conceived following the completion of the Wheel in 2002, the £43m Helix project aimed to transform 350 hectares of disused land between Falkirk and Grangemouth into a vibrant new parkland, marine hub and visitor attraction with the Forth & Clyde Canal at its heart. The centerpiece of the project would be The Kelpies – the world's largest equine sculptures. The colossal, 30-metre-tall stainless steel structures would serve as an iconic monument to the horses that pulled the canal barges of industrial age Scotland and a breathtaking gateway to the nation's canal network.

But, long before the first piece of the sculptures' steel skeleton arrived in Falkirk, plans were in place to ensure The Kelpies were well-known on the world stage. One-tenth scale models of the colossal works of art, known as maquettes, were created by sculptor Andy Scott as part of the funding bid for the project and subsequently travelled all over the UK before memorably stabling in New York's Bryant Park as part of the city's Scotland Week celebrations. Generating widespread coverage both at home and abroad, the mini-Kelpies whetted the appetite of the public for the creation of their full-scale siblings and played a key role in securing funding for the project.

From the moment the first piece of steel was placed alongside the Forth & Clyde Canal, The Kelpies were an ever-present feature in national and international media. Augmented by a coordinated PR and marketing strategy that positioned the sculptures as a world-class visitor attraction and supported by an array of partners, from the Scottish Government to Visit Scotland, the three-month build saw The Kelpies featured in more than 350 individual items of coverage, from The Times and BBC to New

Zealand's 3 News and The Baltimore Sun. The PR campaign also utlised various aspects of the project, from the scultpures' equine design to their complex engineering, to engage a huge variety of specialised media worldwide.

A dedicated social media identity, distinct from the wider Helix project, was also created for The Kelpies with the explicit aim of engaging an international audience. The page quickly gathered tens of thousands of followers from all over the world keen to keep up-to-date with the project as it developed. The Kelpies were officially unveiled to the world in April 2014 amidst a spectacular light, flame and sound display by Groupe F – the pyrotechnic maestros behind iconic celebrations such as the Millennium illumination of the Eiffel Tower and the opening of the world's tallest hotel in Dubai. Attracting more than 12,000 visitors and featured in news around the globe, the event signaled The Kelpies' arrival on the world stage and placed the sculptures, and the canal over which they stand guard, firmly in the public eye.

Featuring a new one-kilometre canal extension and sea lock linking the Forth Estuary and River Carron into the Forth & Clyde Canal, the project drastically improves access to the waterway and removes the heavy reliance on tides that previously affected the lock. The new facilities also allow boaters to enter the canal network before having to de-mast. The new lock also bypasses major navigational restrictions in the form of the Kerse Road Bridge and the M9 Road Bridge, which cross the River Carron.

The new sea lock will also widen the window of access to the canal, increasing the hours of transit threefold for yachts and by almost 12 times for motor boats. One of the most complex sections of waterway ever built in Scotland, the new canal passes under two major trunk roads – as well as between The Kelpies – and dramatically improves access to the waterway. The one-kilometre extension returns the Forth & Clyde back to its birthplace in Grangemouth some 250 years after it was built, and is the final piece in the Millennium Link project. To date, the new section has increased boat traffic in the area by around 30%.

In the 12 months following their unveiling, The Kelpies attracted more than 1 million visitors – far outstripping the 350,000 estimated at the start of the project – and generating an additional £1.5m per year for the local economy. Almost 20,000 people have also enjoyed a boat trip to The Kelpies and more than 65,000 have stepped inside their steel frames and learned of their development as part of formal tours. The popularity of The Helix has also driven the nearby Falkirk Wheel to its busiest year since its opening, with the world's only rotating boat lift attracting more than 500,000 visitors in 2014 as tourists combine a visit to The Kelpies with a turn on the Wheel.

The Kelpies were given their crowning glory in July 2015, when Her Royal Highness Princess Anne performed the Royal Opening of the sculptures, travelling on the new canal section they reign over at the head of a flotilla. A coordinated social media and marketing push, with support from local and national partners, as well as the British Monarchy itself, resulted in a crowd of thousands attending the visit, more than a quarter of a million people viewing content related to it and widespread media coverage in a variety of outlets. From the date work began on the sculptures to the days following the Royal Opening, the public had almost 1.5 billion opportunities to see print or online coverage of The Kelpies and the canal they stand over.

The maquettes also continue to promote their towering siblings, with a carefully-coordinated touring schedule seeing them stabled everywhere from the Royal Highland Show and Edinburgh Airport to the Ryder Cup. Always popular sights at these high-profile events, the maquettes visits continue to generate substantial traditional and social media coverage and prove an effective method of enticing the international audience to find out more about The Kelpies.

The success of The Kelpies and the international appeal of the sculptures was only made possible thanks to the ambition, drive and coordinated approach of the project partners. A strict set of standards and guidelines, targeted marketing, PR and social media strategies, and partnerships with key national and international agencies and organisations have combined to turn The Kelpies into soaring, steel-clad icons that are recognised the world over and serve as a breathtaking symbol of the bright future of Scotland's canals.

The Port of Terneuzen in relation to the Port of Ghent

Jan Lonink
Mayor of Terneuzen (Netherlands)

ABSTRACT

History
The Ghent – Terneuzen Canal is a special one. After the definitive divorce of Belgium and the Netherlands in 1839, suddenly the canal was positioned in two countries. In 1827 the canal had been opened to give the seaport of Ghent a gateway to the river Westerschelde, an estuary of the North sea. This gateway knows a number of specific characteristics. The canal is about halfway divided in two parts by the Belgian – Dutch border. In the past, Belgium and the Netherlands knew very different strategic priorities: both banks of the Westerschelde are Dutch but the Westerschelde is the only waterway to reach the Belgian ports of Ghent and Antwerp. In the past this was a very interesting spot for tolls.

Present situation
All the while we are living apart together for almost two centuries. Ghent needs Terneuzen and Terneuzen may pretty well use the Ghent dynamics to profit from the economic growth that is generated by the Port of Ghent.
There are many reasons why the Belgian part of the canal is economically stronger. The growth of Ghent is partly dependant on the infrastructural situation in the Netherlands. The present situation is sufficient for the Netherlands but not for Ghent. In relation to the building of a new giant sea lock and the choices about the depth of the canal are Ghent's wishes leading the way. That's why Flanders is paying more than 80% of the costs of the new sea lock in the Netherlands. Flanders also paid the additional costs for more deepening a traffictunnel on the Dutch part of the canal, only to avoid future problems for the shipping to Ghent.

Future
At the moment on several occasions the past is still alive and still influences different bilateral dossiers. However, European integration is in progress and to achieve a strong economic development Europe will – in worldwide perspective – have to join forces and find a way to break down the negative consequences of borders. This is the intention of both the cities of Ghent and Terneuzen and of both port authorities. There is no other option than crossborder cooperation to develop the Ghent – Terneuzen area into a strong economic centre.

Germany's new Inland Waterway network bridging East and West

La mise en réseau des voies navigables secondaires d'Allemagne, itinéraires touristiques entre Est et Ouest.

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RÉSUMÉ
Les plaisanciers souhaitant parcourir la voie navigable internationale E70 qui traverse l'Europe d'Ouest en Est rencontrent une difficulté: sur leur parcours entre, par exemple, Anvers et la ville portuaire polonaise de Gdańsk, ils doivent emprunter le réseau (juridiquement) opaque des voies navigables d'Allemagne, qui sont réglementées par de nombreuses juridictions fédérales et régionales. Il a y en outre de réelles menaces qui pèsent sur plusieurs canaux et rivières canalisées parmi les plus précieux du pays sur le plan patrimonial: menaces prenant la forme de restrictions budgétaires, de fermetures d'écluses ou plus largement de la non-prise en compte - au niveau fédéral - de leur valeur culturelle et économique. Le colloque organisé en février 2015 dans la ville d'Eberswalde sur le thème «voies navigables en danger» a produit la «déclaration d'Eberswalde» et la création d'une association NETZWERK DEUTSCHE WASSERWEGE (réseau de voies navigables d'Allemagne) a posé les bases d'un effort collectif en vue de la préservation des les voies navigables historiques de l'Allemagne. Le nouveau réseau NETZWERK DEUTSCHE WASSERWEGE cherche à collaborer avec d'autres régions irriguées par le tourisme fluvial en Europe de l'Ouest comme à l'Est, dans le but de combler un vide – préjudiciable à tous - dans le réseau fluvial européen.

ABSTRACT
Water tourists wishing to travel the E70 international water way between Eastern and Western Europe encounter a problem on their way from, say, Antwerp to the Polish port city of Gdańsk. They have to navigate the non-transparent German system of inland waterways regulated by numerous governmental and regional rules and regulations. Not only is the lack of a central authority and information system suitable for the needs of an international traveler getting in the way of a delightful journey. Moreover, Germany's most valuable historic inland waterways are threatened by financial cuts, lock closures and governmental neglect of their cultural and economic value. From our February 2015 "Threatened Waterways" symposium resulted the Eberswalde Declaration and the foundation of the NETZWERK DEUTSCHE WASSERWEGE (Network Inland Waterways Germany) as a joint attempt to preserve Germany's historic waterways for future generations and, particularly, to offer a more satisfying travel experience to our international guests. Germany's new NETZWERK DEUTSCHE WASSERWEGE will seek close cooperation with water tourism regions in Eastern and Western Europe, thus trying to mend a central gap in the European network of inland waterways.

KEYWORDS
Bridging Eastern and Western Europe, enhancing water tourism for international boaters and non-boaters, Network Inland Waterways Germany, joint lobbying effort, preserving national water-related heritage

TOPICS TO BE ADDRESSED
Waterways in international perspective

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27th World Canals Conference

Theme 2:
Waterways in Economical Perspective

WCC 2015 Ghent
World Canals Conference

Innovation in the service of conservation: ensuring the sustainability of Parks Canada's historic canals by revenue generation

L'innovation au service de la conservation : assurer la viabilité des canaux historiques de Parcs Canada par la génération de revenus

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RÉSUMÉ
Les canaux historiques de Parcs Canada au Québec constituent un formidable réseau de voies navigables construit au début du 19e siècle, autrefois essentiel au commerce international. Aujourd'hui, ces actifs sont principalement utilisés à des fins de navigation de plaisance et d'activités récréatives en berges. Ces ressources culturelles, protégées et administrées par le gouvernement du Canada, suscitent un intérêt croissant de la part des visiteurs et des promoteurs, particulièrement en milieu urbain. À l'heure où les coûts d'opération sont en croissance et où le financement publique est plafonné, comment assurer la viabilité de ce patrimoine national à l'intérieur du cadre réglementaire qui les régit? Depuis quelques années, différentes avenues novatrices sont explorées pour favoriser la génération de revenus, dont : la redéfinition du produit (d'utilisateurs à clients) et la valorisation des propriétés publiques. La mise en oeuvre de ces stratégies nous a permis de connaître une croissance appréciable de nos revenus. Ce document explore les mécanismes de génération de revenu mis en place aux canaux historiques de Parcs Canada au Québec pour assurer la viabilité de ce patrimoine culturel pour les générations à venir.

ABSTRACT
Parks Canada's historic canals in Quebec, a formidable network of navigable waterways built at the beginning of the 19th century, were once essential to international trade. Today, these assets are mainly used for the purposes of pleasure boating and recreational activities along the banks. These cultural resources, protected and administered by the Government of Canada, stimulate a growing interest among visitors and developers, particularly in urban areas. At a time when operating costs are growing and when public funding is capped, how can the viability of this national heritage be ensured within the regulatory framework that governs it? In recent years, various innovative avenues have been explored to foster revenue generation, including: the redefinition of the product (from users to clients) and the enhancement of the public properties. The implementation of these strategies has enabled us to experience significant growth of our revenue. This document explores the mechanisms of revenue generation implemented at Parks Canada's historic canals in Quebec to ensure the viability of this cultural heritage for generations to come.

KEYWORDS
Boating, economic impact, filming, revenue generation, space leasing

TOPICS TO BE ADDRESSED
Waterways in economical perspective, waterways in cultural-touristic perspective

INNOVATION IN THE SERVICE OF CONSERVATION: ENSURING THE SUSTAINABILITY OF PARKS CANADA'S HISTORIC CANALS BY REVENUE GENERATION

Parks Canada's administers five historic canals in the province of Quebec, ranging from Montreal to the strategic axes of the St. Lawrence River and the Richelieu and Ottawa Rivers: the Carillon Canal, the Sainte-Anne-de-Bellevue Canal, the Lachine Canal, the Saint-Ours Canal and the Chambly Canal. In numbers, Parks Canada's historic canals in Quebec consist of: 40 km of navigable waterways, 17

locks, 35 bridges and footbridges, 38 dams and water storage reservoirs, 35 km of trails, 120 buildings and much more. In 2014, there were also more than 17,000 vessels that passed through the locks and more than 1.5 million visitors to the banks. It therefore goes without saying that these navigable waterways are important centres for tourism and act as a social and economic development engine in the regions where they are located. With assets valued at over a billion dollars, many of which are historical works, and an ever growing demand on the part of users, how can the maintenance and improvement of infrastructure be ensured while promoting the development of attractive tourism initiatives? In recent years, Parks Canada has collaborated with local stakeholders, including municipalities, to identify innovative strategies to generate revenue and ensure the financial viability of Quebec's historic canals.

1. Redefinition of the product: from users to clients

1.1. Influencing the habits of recreational boaters

For the past three years, the number of vessels visiting the historic canals in Quebec has been stable, and revenues are declining. In addition, recreational boaters use the navigable waterways primarily to circumvent the natural navigational obstacles that hinder their itineraries, and consider the canals as mandatory thoroughfares. In light of this finding, we have sought to develop strategies that would enable us to increase the number of vessels in the locks and extend their stay in our facilities by making the canals attractive destinations by: 1) conducting a study of the pleasure boating market potential; 2) improving infrastructure and visitor services (addition of docks, electrical power access, food supply); 3) developing experience packages and discovery features (overnight mooring and lockage leading to fireworks, the Atwater market); 4) promotion in new target markets (the United States Northeast region). Results: According to our estimates, these measures will increase the number of recreational craft frequenting the canals by 2% and increase revenue by 5% over the next year.

1.2. Increasing the economic impact of the canal bank client

Quebec's historic canals are bordered by beautiful outdoor green spaces and trails that are frequented by a growing clientele. For example, the Lachine Canal welcomed more than 1 million bank visitors during the 2014 summer season. This clientele uses the banks to move about on foot and by bike as well as for recreational purposes. In addition, real estate developments that are multiplying along the banks bring a new type of client whose high expectations increase maintenance costs. How can the economic impact of this important clientele be increased and advantage be taken of the needs of new residents? To achieve these two objectives, Parks Canada has implemented a series of innovative strategies: 1) improving the commercial offering (allocation of concessions for outdoor activities, refreshment and tour operators); 2) developing new products and packages in partnership (offer of paid accommodation and interpretation products – *Cité mémoire* project); 3) accommodating attractive programming; 4) offering the canal market to advertisers (displays, brand activation). Results: Between 2013 and 2014, these strategies enabled us to experience an increase in bank frequentation at all canals by 2% (more than 1.5 million visitors) and significantly increase sales revenues.

2. Enhancing the value of public properties

2.1. Stimulating the leasing of event spaces

The pleasure boating vocation has always been at the centre of Quebec historic canal managerial considerations, whereas the land along the banks was incidentally landscaped and maintained to enhance this primary function. The presence of water, the magic of the nautical show, the extensive green spaces located near major centres and the mechanical and industrial structures that reflect a bygone era still offer a highly sought-after milieu. Aware of this powerful potential, Parks Canada has set as goals to: 1) give value to these spaces. 2) increase the revenue derived from event leasing. To do so, Quebec's historic canals have deployed strategies inspired by private sector presentation venues: 1) structuring spaces by equipping them with infrastructure, preferably in partnership (electricity, kiosks, enhancement of existing layout); 2) developing a competitive fee schedule; 3) promoting leasing spaces (fact sheets, website, theme fairs, familiarization tours). Results: Between 2013 and 2014, these initiatives enabled Parks Canada's Quebec historic canals to increase revenues related to the granting of permits for the holding of events by over 177%.

2.2. Positioning the canals as filming locations

On average over the years, Parks Canada receives many requests for filming from film and television productions of all kinds, even major Hollywood productions. This use of the sites highlights the heritage assets of the navigable waterways with different audiences, and above all, generates revenue

from the issuance of filming rights. The growing interest of this industry in our sites has made us aware of the vast potential represented by this market. Thus, we have sought to position the canals as filming locations and to increase revenues from this activity. To achieve this, we have collaborated with the film industry in order to: 1) structure the canal filming offer (photographic surveys of the sites, technical data sheets); 2) promote the filming locations (familiarization tours; advertising, website). Results: Between 2013 and 2014, revenues related to leasing of the sites for filming grew by 106%.

2.3. Hosting of structures under lease

Formerly central components of a vast maritime transport system, the canals occupy a strategic position, mostly located in an urban milieu. This favourable location arouses the interest of many interveners, especially for the installation of various structures such as: water systems, power lines, gas lines, private docks, billboards and telecommunication towers. Indeed, while some properties are located in very busy areas lined with residential developments or again, spanned by very crowded roads, others are located away from frequented areas. With the aim of increasing its revenues, Parks Canada set itself the objective of managing and making available the public properties under its control for the acceptance of structures under lease on a temporary or semi-permanent basis. To do so, the strategy was to: 1) make an inventory of existing structures; 2) develop a competitive fee schedule; 3) update historical agreements; 4) take advantage of agreements to improve facilities. Results: As an example, a billboard installed above the Lachine Canal on the edge of an expressway, generated annual revenues of $30,000. By adding occupancy agreements related to the execution of work by third parties on facilities located on or near canal property, real estate revenue grew by more than 58% between 2013 and 2014, reaching $450,000.

2.4. Capturing land value appreciation

The financial efforts made by Parks Canada in revitalizing the banks of the Lachine Canal to enable its reopening to pleasure boating in 2002 helped attract huge real estate investments estimated at more than 1.5 billion dollars. Over the years, due to the development of many residential and commercial complexes along the edge of the canal, the surrounding municipalities were able to greatly expand their tax bases. For its part, Parks Canada, the owner of the assets which helped attract these investments, was unable to take advantage of this massive influx of capital. How can the maintenance and improvement of these infrastructures be ensured in order to continue to attract real estate developers? Among the revenue generating avenues currently under study, Parks Canada, in collaboration with the municipalities, is focusing on mechanisms for the capture of land value appreciation generated by the presence of historic canals. A survey conducted by the Parks Canada team revealed that properties overlooking the navigable waterway were worth nearly 30% more on average than other dwellings in the same complex. To implement this strategy, it will be important to: 1) assess the land value appreciation generated by the presence of the canals; 2) develop agreements with the municipalities (income sharing, exchange of services, development and maintenance of parks); 3) monetize the discharges of runoff water from the canals. Many examples of the application of this mechanism in the context of large mass transit projects (extension of the New York subway), in the form of public-private partnerships to finance the development of public infrastructure, are proliferating throughout the world. This avenue is very promising for ensuring the maintenance and improvement of infrastructure and public facilities for the canals.

In closing, the financial framework in which Parks Canada operates has led us to focus on new ways of generating revenue in cooperation with the stakeholders in the milieu. Analyzing the reality of the canals through this new optic has resulted in seeing the emergence of innovative solutions in addition to promoting the involvement of local communities in their region's economic and tourism development. The entirety of the revenue generated by these activities is reinvested in the canals, and through responsible fiscal management and wise investments, it will allow today's and tomorrow's recreational boaters and users to appreciate one of the most beautiful navigation networks in the world.

A renewed era in development along the Erie Canal

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ABSTRACT

In two years the celebrated Erie Canal will be 200 years old and the last 5 have seen 7 new projects developed next to and incorporating the beloved canal breathing not only new life to the waterway, but millions of dollars of economic growth to the communities along its banks.
Two of these projects**,** described below**,** will be dealt with in greater detail, as the organization I represent began with the property acquisition many years ago.
The Reserve is a 63 acre (2,744,280 sq.ft) housing development situated along 1400 ft. of the Erie Canal. This project has 5 different housing products and features a clubhouse, which provides amenities to the 352 resident units. Some of the features include trails within the village that lead to the canal, a large boat dock, a non-motorized boat put-in and an overall focus on the canal.
CityGate is a 60 acre mixed use project with retail and housing in a unique setting, again along 410 ft. of the Erie and promises to be an urban village set along the canalway.
(the bullets below will be expanded with 2 slides each)

- The depth and equality of these and the other 5 projects is remarkable. (other projects presented)
- Significant number of jobs – 4,200 construction / 2,200 permanent (verify number)
- Economic impact is noteworthy – 3.4 Billion!
- If the public sector wants to invigorate the tax base, do it with public/private partnerships
- The future is bright. The **New York State Canal Corporation** has been, and continues to be an excellent steward in managing, sustaining and promoting the Erie Canal.

Raising awareness for future development:
When one considers the future and how we, as proponents of canals can ensure the future of these natural wonders, we can look to the strengths of the **Canal Society of New York State** and **Canal New York**. These entities and their members are devoted advocates and the future of these organization(s) is secured by the passion of each enthusiast. One opportunity to sustain these organizations is the focused effort to attract a younger crowd of supporters. This effort will certainly pay dividends, for if we do not share the history and magic of water, future generations may not be aware of the jewel which surrounds them.

Optimizing navigation areas to increasing ship dimensions

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ABSTRACT

The scale enlargement in the maritime fleet continuously creates challenges when a ship is sailing in confined environments such as ports, waterways and canals. An optimal adaptation of the existing infrastructure to increasing ship dimensions is not always feasible for financial, environmental and other reasons. As a result, ships have to operate more and more often in marginal conditions with respect to the horizontal and vertical boundaries of the navigation areas and to other – either sailing or moored – ships. The paper will contain an overview of major hydrodynamic effects which are of importance for ships sailing in confined environments (such as shallow water effects, ship-bank interaction, ship-to-ship interaction, fluid mud effects), as well as a number of recent examples of studies carried out by the Knowledge Centre “Manoeuvring in Shallow and Confined Water”, which is a co-operation between Flanders Hydraulics Research and the Maritime Technology Division at Ghent University.

The Shannon Blueway - bringing prosperity to Ireland's inland waterways

The Shannon Blueway - une initiative visant à faire prospérer les voies de navigation intérieures en Irlande

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RÉSUMÉ

Waterways Ireland a pour mission de préserver, gérer, aménager et restaurer les voies de navigation intérieures au sein du territoire irlandais, principalement à des fins de loisirs. Des initiatives telles que The Shannon Blueway viennent donner un nouveau souffle à ces voies de navigation face à une demande grandissante en matière d'activités de loisirs de plein air. The Shannon Blueway offre un vaste réseau de voies et sentiers à explorer à vélo, à pied ou sur l'eau, au fil des villages et des différentes communautés, le tout dans un cadre principalement rural. Waterways Ireland est à l'origine du développement de cette initiative durable en matière d'activités de loisirs et de tourisme le long des voies de navigation de la région du Nord Shannon.

Ce projet a pour principal objectif d'exploiter les voies de navigation à des fins de loisirs et ce, dans le but de générer à terme des avantages socio-économiques, sanitaires et communautaires. En plus de constituer des couloirs importants sur le plan national et international, les voies de navigation intérieures du pays offrent un formidable potentiel en matière de loisirs et de détente. The Shannon Blueway propose un vaste éventail d'activités et contribue au développement économique sur l'ensemble de son réseau. Cette initiative est ancrée dans des principes d'engagement et de partenariat au niveau local, visant à développer et à encourager les entreprises locales venant proposer des services destinés aux visiteurs, à générer une certaine prospérité et à créer un lieu où il fait bon vivre.

ABSTRACT

Waterways Ireland is responsible for maintaining, managing, developing, and restoring the navigable inland waterways of Ireland, principally for recreational purposes. Initiatives such as the Shannon Blueway are re-energising the waterways and responding to increasing demand for active outdoor visitor experiences. The Shannon Blueway is an extensive network of paddling, cycling and walking routes, connecting villages and communities in a predominantly rural setting. Waterways Ireland has led on the development of this sustainable activity-tourism proposition along the waterways of the North Shannon.

The essential aim of the initiative is to increase the recreational use of the inland waterways and thereby to generate economic, health, social and community benefits. Ireland's Inland Waterways are corridors of National and International significance and are spectacular recreation and leisure amenities. The Shannon Blueway supports a myriad of activities and helps to grow and develop businesses along its length. The initiative is rooted in local engagement and partnership working, supporting local enterprise in the provision of visitor services, bringing prosperity and ultimately creating a better place to live.

KEYWORDS

Business Development, Economic Potential, Multi-activity Trails, Outdoor Activity Providers, Visitor Experience

TOPIC TO BE ADDRESSED

Waterways in Economical Perspective

A study on revitalization of coastal shipping using the Gyeong-in Ara Waterway

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ABSTRACT
The Gyeong-In Ara Waterway is the first canal in the Korea. The construction began in 2009 and was completed in 2011. The waterway commenced operations in 2012. K-water, which is the Korea water resources corporation in Korea, carried out the project. There are three important functions such as flood prevention, freight transport and a recreational waterfront. The waterway was constructed with a length of 18km, a mean width of 80m and the water depth of 6.3m. There are two ports. Both are located at the end of the waterway. One side is the West Sea and the other side is the Seoul(the capital of South Korea). Each port is composed of a wharf and a port logistics complex. Despite Korean government's effort to shift the transport mode from road to coastal shipping including modal shift subsidy scheme, its effect has not been demonstrated yet. Therefore, this study aims at Revitalization of Coastal Shipping Using the Gyeong-in Ara Waterway. For example, say the heavy cargo transport that can't pass the downtown bridge.

KEYWORDS
Gyeong-in Ara Waterway; coastal shipping; modal shift; heavy cargo; recreational waterfront

TOPICS TO BE ADDRESSED
Waterways in economical perspective

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Economic perspective on the waterways in Flanders

Point de vue économique sur les voies navigables en Flandre

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RÉSUMÉ

Waterwegen en Zeekanaal NV (W&Z) est l'autorité flamande responsable de la gestion des rivières et canaux navigables dans la partie occidentale de la Flandre. En tant que pouvoir public flamand, une tâche importante qui est la nôtre est de veiller à ce que les voies fluviales et les terrains avoisinants soient entretenus et gérés efficacement, et à promouvoir l'utilisation commerciale des transports fluviaux. Le lien entre l'activité économique d'une région et le développement des transports en son sein est indéniable. Etant donné les besoins croissants de mobilité, la Flandre se trouve face à un défi majeur de création d'un vaste réseau intermodal afin de stimuler l'economie. Les transports et la logistique sont deux secteurs clés de l'économie flamande. Notre position centrale en Europe occidentale et notre grande infrastructure de transports nous offrent la possibilité de devenir la meilleure région en matière de transports et de logistique en Europe. En tant qu'administrateur des voies navigables flamandes, W&Z joue un rôle clé dans le transfert vers des modes de transport plus respectueux de l'environnement. Afin de donner une réponse à la congestion routière et à la pollution, l'ambition de la Flandre est d'augmenter le trafic ferroviaire et fluvial de 30% d'ici à 2030. De ce fait, l'investissement dans l'innovation est très important afin de développer davantage la navigation intérieure et de travailler sur de nouvelles idées. Ces nouvelles idées mènent à de nouveaux produits et de nouveaux procédés qui rendent la navigation intérieure plus efficace et plus attrayante. Comme l'innovation est l'un des principaux piliers de l'économie européenne, l'élaboration de concepts novateurs contribue à la richesse économique de la Flandre. W&Z est convaincu que l'innovation dans la navigation intérieure est essentielle pour notre économie afin que la Flandre surpasse ses voisins européens dans le transport et la logistique. Les résultats ont déjà montré que l'investissement dans le réseau fluvial a conduit à de nouveaux pôles d'attractivité et qu'il a un effet significatif sur le taux d'emploi et la valeur ajoutée de cette région. Comme exemples de projets d'innovation concrets, on peut citer Watertruck, Districity et Wasteship.

ABSTRACT

Waterwegen en Zeekanaal NV (W&Z) is the Flemish waterway authority responsible for the management of the navigable rivers and canals in the western part of Flanders. As a Flemish government authority, an important task of ours is to ensure that these waterways and the considerable land alongside them are efficiently maintained and managed, and that we promote commercial use of water-bound transport. The link between the economic activity of a region and its development in terms of transportation is undeniable. Given the increasing demand for mobility, this presents Flanders with the major challenge of building the most extensive intermodal network in order to stimulate the economy. Transport and logistics are two key sectors of the Flemish economy. Our central position within Western Europe and our great transport infrastructure offer us the opportunity to become the best region in terms of transport and logistics in Europe. As administrator of the Flemish inland waterways, W&Z plays a key role in empowering Flanders to achieve this goal and to enable the modal shift. To give an answer to road congestion and pollution, Flanders' ambition is to increase rail and inland waterway traffic by 30 % by 2030. As a result, investing in innovation is very important to further develop inland navigation and explore new ideas. These new ideas lead to new products and new processes that make water-bound transport more efficient and attractive. As innovation is one of the main pillars in the European economy, elaborating innovative concepts contributes to the economic wealth of Flanders. W&Z is convinced that innovation in inland navigation is essential for our economy in order for Flanders to outshine its neighbors in transport and logistics. Results have already shown that investing in the inland waterway network has led to new clusters of activity and that it has a significant effect on the employment rate and the added value of that region. Examples of concrete innovation projects are Watertruck, Districity and Wasteship.

KEYWORDS
Water-bound transport, road congestion and pollution, economic growth, innovation, modal shift

URBAN WATERWAYS from an economic point of view

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ABSTRACT

From the economic perspective, the waterways are considered foremost as providers of a cheap alternative mode of transport. This is obviously true. Recently, the Road Transport and Highways Minister, Govt. Of India presenting a Bill for converting 101 rivers transportation channels pointed out that water transportation cost is barely 50 paise a Km. In comparison to Rs. 1 by Railways and Rs. 1.5 a K.M. by Road. The proportion of the costs may vary from country to country but these will be very much similar.

A direct corollary to this economic proposition, is that the water transportation does not only save costs directly but also by taking off a large burden from Roads leading to lesser costs due to lesser congestion on Roads, lesser pollution and lesser loss of life by accidents.

However, the waterways bring down the costs of urbanisation also in various other manners. The waterways in an urban area can be used, in a planned manner, for preventing waterlogging by providing effective drainage of Rain water, particularly during Monsoon . In many cities in the Monsoon area waterlogging cripples the urban life and results in huge loss in economic terms. The waterways are ideal for harvesting the Rainwater which again contributes directly to urban economy.

The waterways while helping to drain off and hold water, can very well be used for supplying water. Certain Industries need a huge amount of water and traditionally the Riverbanks offered the best location for them. Thus the community lost very valuable urban space and the Riverbanks became inaccessible. The waterways can create alternative viable sites for Industries with modern infrastructure and release the Riverbanks for social and recreational use.

We have seen very inspiring examples of this, where Industries and Dockyards have been removed to make room for various community uses. From the economic perspective, the generation and release of land values is actually tremendous.

The Waterways can bring the greeneries right in the heart of the city. They can create an ambience which water bodies only can do as they stand in great contrast to vast built up spaces. The micro-climate around these is affected in a positive way. Aquatic sports and Recreational activities get grow and develop along these blue-green corridors. The economic benefits are intangible but nevertheless are palpable enough.

In sustenance and growth of aquatic life the economic benefits are very much direct and tangible. Fish and vegetables are direct products of urban agriculture supported by the waterways.

Today, we, in the developing countries confront the challenge of an unprecedented urbanisation. In India, for example the urban population is going to go up by more then 250 million in the next 30 years.

The cost of urbanisation must be low and must also be eco-friendly and sustainable.

The development of urban infrastructure and maintenance of the same must be economically viable. Waterways can bring down the costs of development considerable as the costs of building 1 K.M. of waterway is much less than building 1 K.M. of Road or Railways or Skyways.

It has been found that operating Waterways gives an Economic internal Rate of Return of 17% while World Bank prescribes a minimum of 5% for any public utility project.

Lastly, it has also been found that, operating 1 K.M. of National Waterways creates 3000 jobs by direct and indirect means and these jobs are highly suitable for the people who had agriculture, basically, as their livelihood.

Long ago, Lewis Mumford described the Dutch canals as the creation of “the most beautiful urban environments created by man”

We cannot ignore this observation when we plan for our urban areas and restore the old ones.

Let us meet the challenge by consciously and intelligently planning our waterways as integral parts of urban areas. Better, we start planning from the blue-green corridors for an environmentally better, economically sustainable and ecologically friendly new urban areas

27th World Canals Conference

Theme 3:
Waterways in Historical Perspective

WCC 2015 Ghent
World Canals Conference

The Lieve, a 13th century canal from Ghent to the North Sea

Le Lieve, un canal du 13e siècle de Gand à la Mer du Nord

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RÉSUMÉ
Entre 1251 et 1269 la ville de Gand creusait un canal de 46,5 km, le Lieve, vers la Mer du Nord. Puisque le canal devait passer un divise d'eau, le tracé était soigneusement choisi. Le plus grand problème était alors de collecter assez d'eau pour assurer la navigation. Pourque les bateaux puissent passer, les Gantois construisaient 12 pertuis (rabotten). Le transport se passait avec des seien, des bateaux de rivières de 15 à 20 tons. Tout le canal avec les bergers et les pertuis était exclusivement propriété de la ville. Avec l'ensablement du Zwin dans le 15e siècle, le Lieve n' avait plus qu'une importance régionale. Après le creusement du Sassevaart en 1563 (vers l'estuaire de l'Escaut) et le Brugse Vaart en 1623 (vers Bruges) son rôle était fini.

Bien que le Lieve est plus ancien que beaucoup d'autres canaux en Europe, le canal n'est pas mentionné dans la liste du patrimoine mondial et n'est pas du tout connu internationalement.

ABSTRACT
Between 1251 and 1269 the city of Ghent dug a canal of 46,5 km to the North Sea. Since waterway had to cross a watershed, the track was chosen very carefully. It was especially difficult to maintain a sufficient amount of water in the highest section. Therefore 12 locks (so called 'rabotten') needed to be built, dividing the canal in 11 pounds. For shipping they used 'seien', typical riverboats with a tonnage of 15 to 20 tons. The canal with both banks and all constructions was in full ownership of the city. In the 15th century, with the sanding up of the Zwin, the Lieve became only of a regional importance. After excavating the Sassevaart to the Western Scheldt (in 1563) and the canal to Bruges (in 1623), its role was economical finished.

Although the Lieve canal is more than a century older than many other European canals, it is not mentioned on the list of world heritage and remains internationally unknown.

KEYWORDS
canal, Ghent, heritage, rabotten 13th century

TOPICS TO BE ADDRESSED
topic : waterways in historical perspective

The Lieve, a 13th century canal from Ghent to the North Sea
Between 1251 and 1269 the city of Ghent dug a canal of 46,5 km to the North Sea. In this 13th century a lot of small harbours were developed in the mouth of the Zwin, a large inlet of the sea. The most important of those harbours was Damme, where goods from the Baltic Sea, France, Germany and England were transshipped to Bruges.

The track of the waterway from Ghent to Damme was very carefully chosen: sand ridges were avoided and existing brooks, wells and marshes were used for water supply. However, a large broad watershed, near Eeklo-Balgerhoeke, had to be crossed. It was especially difficult to maintain a sufficient amount of water in the highest section. Therefore 12 guillotine locks (so called 'rabotten') needed to be built, dividing the canal in 11 pounds.

The whole canal, with banks and locks, was in full ownership of the city of Ghent. Every boatman needed to buy a letter of freedom, which granted permission to sail. The freights consisted mainly of tuns of wine, beer, corn, hareng and building materials (stones) and were transported by 'seien', typical riverboats with a tonnage of 15 to 20 tons.

With the Lieve (together with the rivers Kale, Leie and Scheldt) Ghent acquired a sophisticated network of waterways (which were called 'the most beautiful jewels of the city'), which enabled it to become the leading city in the county and one of the most populated and prosperous towns of Western Europe in the 13th century.

From the 15th century on, with the sanding up of the Zwin, the Lieve became a canal of only regional importance. After excavating the canal the Sassevaart to the Western Scheldt (in 1563) and the canal Brugse Vaart (in 1623), its role became merely local. In the 19th century some parts of the Lieve were filled up and a section of 20 km was used as a derivation canal of the Leie river.

Although the Lieve canal is more than a century older then the well known canal Stecknitzfahrt (1398), it is not mentioned in any list of world or water heritage and remains internationally unknown. The waterway is still visible in the landscape and only some parts are protected.
The canal, with 12 locks, dikes, siphons, bridges and a complicated water management, was a technologically eminent high standing project. The Lieve canal was a good illustration of the economical power and wealth of the city of Ghent in the 13th century.

Picture of the Lieve nearby Evergem: the location of the Zoete Moeie rabot
Postcard of the only still existing rabot: the Rabot in Ghent (anno 1900)

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“IRON GATES “ - Đerdap / Danube through history

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ABSTRACT

The Iron Gates (Romanian: Porţile de Fier, Serbo : Đerdapska klisura, Hungarian: Vaskapu-szoros, German: Eisernes Tor, Turkish: Demirkapı) is a gorge on the River Danube. . The gorge lies between Romania in the north and Serbia in the south. At this point, the river separates the southern Carpathian Mountains from the northwestern foothills of the Balkan Mountains. The Romanian side of the gorge constitutes the Iron Gates natural park, whereas the Serbian part constitutes the Đerdap national park.

It forms part of the boundary between Serbia and Romania. In the broad sense it encompasses a route of 134 km (83 mi); in the narrow sense it only encompasses the last barrier on this route, just beyond the Romanian city of Orșova, that contains two hydroelectric dams, with two power stations, Iron Gate I Hydroelectric Power Station and Iron Gate II Hydroelectric Power Station.

History
Several thousand years ago, during the old era, in the youngest stage of the Stone Age period - namely from the period of Mesolithic and Proto-Neolithic culture **Lepenski Vir**, the oldest settlements in the “open” appeared on the banks of the Danube and its islands and gorges, as well as upstream and downstream from Kladovo (the geographical center of the wider area of the Iron Gate region).
Today, in the first decades of the 21st century, thanks to the results of the protection measures done as part of the Project Đerdap, National Park- Đerdap is covering protected, natural and cultural heritage of the territory of the Danube at the Đerdap gorge, together with the wider rear area.

Thanks to the remarkable archaeological discoveries, the broader band of the Danube's Serbian coast is enriched with Iron Gate, the unique archeological park (Gradište-Golubac-Donji Milanovac-Tekija-Kladovo-Brza Palanka-Mihajlovac-Prahovo), with cultural monuments or “museums in the open”, flood protected heritage, and two specialized archaeological museum of the region **- Museum of Lepenski Vir**, a museum at the eponymous site Lepenski Vir near Donji Milanovac, and the **Archaeological Museum of Đerdap** in Kladovo opened in 1996. This area, together with hydro power plants Đerdap and monuments from the recent period form a unique cultural landscape of the Danube, which has emerged and changed in the continuity of more than ten millennia.

Discovering the identity of oriental cultural landscape——from ancient maps of Grand Canal

Découvrant l'identité du paysage culturel - de anciennes cartes de Grand Canal

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RÉSUMÉ
Le Grand Canal de la Chine a 1776 km de long et localise sur la zone orientale chinoise, il est considéré comme le cordon ombilical de la civilisation chinoise. Le Grand Canal et ses cours d'eau ont fait des réalisations culturelles spéciales dans une longue histoire, en attendant les peuples anciens ont également enregistré leurs diverses activités sur certaines cartes graphiques. Heureusement, cinq anciennes cartes précieuses de Grand Canal faites il ya centaines d'années qui nous ont montré les fonctions significatives du grand corridor de l'eau, ses origines de l'eau, les reliefs et les travaux d'irrigation, réseau national de transport d'eau, formes urbaines des villes du canal, attractions touristiques traditionnelles, etc. Les anciennes cartes de Grand Canal ont beaucoup de mémoire historique qui pourraient nous aider à comprendre ses cultures diversifiées dans différentes couches spatiales. De cette manière, nous pourrions repeindre son contenu de paysages pour nous montrer une identité unique de Grand Canal.

ABSTRACT
The China Grand Canal has 1776 kilometers long and locates on the Chinese eastern area, it is considered as the umbilical cord of Chinese civilization. The Grand Canal and its streams have made special cultural achievements in a long history, meanwhile the ancient people also recorded their various activities on some graphic maps. Fortunately, five valuable ancient maps of Grand Canal made hundreds years ago which showed us the meaningful functions of the great water corridor, its water origins, the landform and irrigation works, national water transporting network, urban forms of canal cities, traditional tourist attractions, etc. The ancient maps of Grand Canal have many historical memory could help us to understand its diversified cultures in different spatial layers. By this way, we could repaint its contents of landscapes to show us an unique identity of Grand Canal.

KEYWORDS
China Grand Canal, cultural landscape, identity

1 INTRODUCTION
1.1 A historical heritage route
In China, Great Wall is considered as a national cultural symbol for its brilliant artificial constructive work in the history, it was listed in World Heritage by UNESCO in 1987. Then 27 years later, last year, the Grand Canal was successfully become member in World Heritage List, for its outstanding artificial waterways and abundant cultural tangible and intangible heritage. By almost 2500 years, Grand Canal was a busy shipping waterway, but accompanied by more functions which have developed into a multi-cultural route.

1.2 A large-scale waterline network
The Grand Canal has a large scale especially combined with inland big rivers, such as Yangtze River and Yellow River, it could reach Beijing from southeast city Hang Zhou, passes nearly 1800 kilometers in seven sections of waterway. In Shan Dong province, there is a most widespread middle section which are supported many water fountains from nearby or remote rivers or mountains.

2 RESEARCH METHODS

A integrative study could discover the cultural landscape of Grand Canal, its cultural values have more relationship with the land and people who living here. Researches could use many ancient documents, like the cartographic records from 17th to 19th century, they are painted realistically for showing different activities along the waterway.

3 DECODING THE WATER LINEAR SYSTEM FROM ANCIENT MAPS

On the below it concludes six subjects which describe the integrative linear space pattern and cultural landscape from ancient maps of Grand Canal.

3.1 Natural system

3.1.1 Water shapes: a swing waterway

An artificial waterway borrowed water to build a large scale route. Grand Canal are planned to suit the transporting standards, has different levels and limits for the use. The maps show the every section of Grand Canal in a distinctive shape, some are straight but others are U-bend form. The straight waterway has more water gate, but others meandering waterway could control flow rate or water lever by its quantity of bending, which are more used in the north section of Grand Canal.

3.1.2 Water products: an agricultural belt supported by the waterway

Agricultural belt of Grand Canal across different latitudes, where the crops have obvious characteristics. The Chinese variety foods and crops from the north and south could exchange through the Grand Canal, also resulted in exchanging the agricultural technologies, the corn and cotton from north, the rice and silk from the south. The agricultural belt had a diversity in agricultural products, they have colorful agricultural landscapes in different latitudes about thousand kilometers.

3.1.3 A network of fountains: search for water

One map shows almost all the headwaters which offer water for a section of canal in Shan Dong province. Not only the headwaters were marked their detail directions included names of those surrounded mountains and lakes. Water source searching protected the water level for navigation in unfavorable conditions, for example, in the northern less rainfall region.

3.2 Cultural system

3.2.1 A financial channel: collecting revenue of waterway

In 19th century, the empire had built a financial system in the country by setting those taxation offices, collecting a lot of taxes. Seven of eight taxation offices set along the Grand Canal, which were located near the river bank, normally outside of the city, collected the tax and transporting fees from the local merchant and governmental vessels. The Grand Canal was the most busy transporting financial channel recorded in documents.

3.2.2 Lineal riparian constructions: levees, postal & official roads

Grand Canal has expressway parallel to the waterway and many stations for postal horses feeding. The shipping waterway undoubtedly is a low speed transporting route, although it could sailing high capacity goods. The ancient maps sign a distinctive red line as an postal expressways between cities. Normally the roads along the canal were used frequently for transmitting the urgent mail from central government. Moreover the river workers had constructed series of levees along the waterway, some of them are reinforced by bricks and other traditional materials. These tangible cultural heritages show us visual riparian system which maintaining a strong and safe waterway.

3.2.3 A spectacular boat tour: the folk custom and narrative waterline

The ancient emperors were interest in making a sightseeing tour by boats in Grand Canal. The proximate boat tour was in 19th century, Qianlong Emperor had travelled six times, the activities of boat tour were painted on art scroll which showed the imperial honor guard, and other interesting fold customs from those cities, towns and villages, which were along the north to south waterway. Actually the architects and gardeners designed lots of royal villas and private gardens for the emperor.

4 DISCUSSION

The waterway should be treated as an blue line in the view of regional planning. Using the ancient maps or documents, we aim to recollect the scenes of historical waterway, restore traditional urban and rural space, even create a new local cultural landscape. Could the large scale waterway been integrated into the regional planning? Actually from those ancient maps, people had practiced different scales works in the waterway.

5 CONCLUSION

In a word, these six factors could be used for reveal the waterway's characters. Also this is important to define the identity for the large scale waterway. With a integrative strategy in contemporary urban planning, historical waterway could inherit or transform their cultural landscape.

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The inventory of the Flemish heritage fleet

L'inventaire de la flotte historique flamande

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RÉSUMÉ

L'inventaire de la flotte historique de la région flamande a été publié en ligne à l'été 2014 (https://inventaris.onroerenderfgoed.be/ivm). L'inventaire donne un aperçu de navires et embarcations présentant une valeur patrimoniale, conservés en région flamande. L'Agence du patrimoine de Flandre a commencé une recherche concernant les bateaux de pêche en bois et les voiliers en 2007 et 2008. Entre 2010 en 2013 l'agence a effectué une étude géographique des navires dans les ports et le long des rives des canaux et rivières de la région.
L'agence a fait une sélection des navires découverts basée sur leur valeur patrimoniale. Cette valeur est fondée sur l'importance historique, socio-culturelle, scientifique et industrielle. Par ailleurs, les navires doivent être dans un état impeccable, ce qui implique que leur état actuel doit être conforme à leur aspect d'origine. Des transformations ultérieures peuvent avoir affecté la valeur patrimoniale. Enfin, le navire devrait être dans une condition matérielle garantissant sa préservation à long terme. Des répliques de bateaux anciens ou des évocations d'anciens types de bateaux ne sont pas repris dans l'inventaire.
L'inventaire de la flotte historique de la région flamande compte environ 125 bateaux, dont des voiliers de luxe, des yachts à moteur, des barges, des chalutiers et même une grue flottante.

ABSTRACT

The inventory of the Flemish heritage fleet was published online in the summer of 2014 (https://inventaris.onroerenderfgoed.be/ivm). The inventory provides an overview of the vessels that possess heritage value that have been preserved in the Flemish region. The Flemish Heritage Agency started a research concerning wooden trawlers and sailing yachts in 2007 and 2008. Between 2010 and 2013 the Agency conducted a geographical survey of the vessels found in the harbours and the mooring places along the canals and the rivers in the region.
The Agency made a selection of the discovered vessels based on their heritage value. This value is founded on their historical, cultural, scientific and industrial-archeological significance. Furthermore, the vessels need to be in a flawless state, which implicates that their present state should be conform their original appearance. This implies that far-reaching alterations to the vessel can seriously damage the heritage value of the object. Finally, the vessel should be in a material condition that guarantees its long term preservation. Replicas and recently built evocations of old types of crafts are not included in the inventory.
The inventory contains about 125 crafts, among which luxurious yachts, barges, trawlers and even a floating crane.

KEYWORDS

Inventory, Heritage, Heritage Fleet, Flanders

Teaching towpaths & tugboats: using New York's canals to engage & inspire youth

Enseignement chemins de halage et remorqueurs : Utilisation des canaux de New York à engager et inspirer les jeunes

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RÉSUMÉ
Avec un objectif d'engager les générations futures de navires de canal Erie Canalway National Heritage Corridor et New York State Canal Corporation travaillent à amener les jeunes à l'eau et incorporer les canaux et les voies navigables dans les programmes scolaires . Le phare de La Canal Corporation, le remorqueur *Urger* 1901, tournées à travers la saison de navigation . Erie Canalway NHC "Ticket to Ride" programme subventionne des excursions de Canal axé musées et sites historiques de plus de 6200 étudiants par année de 70 écoles primaires et secondaires à travers l'état. Le *Urger* et "Ticket to Ride" programmes utilisent des canaux pour se concentrer sur les technologies de la science et de mathématiques (STEM) concepts ainsi que des sujets plus traditionnels de l'histoire et de la géographie.

ABSTRACT
With a goal of engaging future generations of canallers, Erie Canalway National Heritage Corridor and New York State Canal Corporation are working to bring young people to the water and incorporate canals and inland waterways into school curricula. The Canal Corporation's flagship, the 1901 tugboat *Urger,* tours throughout the navigation season. Erie Canalway NHC's "Ticket to Ride" program subsidizes field trips to canal focused museums and historic sites for more than 6,200 students per year from 70 primary and secondary schools across the state. The *Urger* and Ticket to Ride programs use canals to focus on Science Technology and Math (STEM) concepts as well as more traditional topics in history and geography.

KEYWORDS
Education, Erie Canal, Historic Site, Museum, School

TOPICS TO BE ADDRESSED
Waterways in Historical Perspective / Waterways in Cultural-Touristic Perspective

Teaching Towpaths & Tugboats: Using New York's Canals to Engage & Inspire Youth
Duncan Hay, Erie Canalway National Heritage Corridor
Engaging future generations of canallers is a challenge. Where will the next wave of canal workers, professionals, and enthusiasts come from? How can we help young people come to value the waterways that WCC attendees care so passionately about? What will make canal structures, channels, and vessels relevant, and not simply relics?

New York State Canal Corporation and Erie Canalway National Heritage Corridor are addressing youth engagement in several ways. The Canal Corporation's flagship ambassador, the 1901 tugboat *Urger*, tours the 524 mile (843 km) system throughout the navigation season, offering programs to schools and summer youth programs as well as public open hours at ports of call along the way. Erie Canalway NHC's "Ticket to Ride" program subsidizes school field trips to canal focused museums and historic sites across the system. Canals and the heritage corridor have also supported on-water and shore-side youth programs organized by others, notably the voyages of the replica 1862 canal schooner *Lois McClure*, built and operated by Lake Champlain Maritime Museum.

Erie Canalway National Heritage Corridor (ERIE) was established in 2000 in partnership with the National Park Service. The Corridor encompasses about 230 cities, towns, and villages along the four

active branches of New York's Canal System and is charged with preserving and sharing our canal heritage, promoting activities, and fostering vibrant communities.

Several years ago ERIE made a grant the Albany Institute of History and Art to develop online resources for teachers and students that utilized documents, historic photographs, objects, and sites to examine the role of the Erie and other canals in shaping New York and the nation.

Educators are placing increasing emphasis on Document Based Questions (DBQs) that require students to read, analyze, derive meaning, and communicate, rather than simply memorizing and repeating dates and facts. Canals are deeply embedded in New York State's 4th, 7th, and 8th grade curricula and are ideal topics for these document based inquiries.

American schools are placing ever more emphasis on Science, Technology & Math (STEM) subjects. Canals offer entries into those topics as well – from simple calculations to physics & mechanics, hydraulics, engineering, and environmental science. ERIE provided a grant to the Rochester Museum & Science Center to develop exhibits and programs that used canal structures to examine STEM concepts.

Classroom learning takes on deeper meaning when combined with real-world examples. Field trips are important school experiences. They reinforce sometimes abstract classroom concepts in real-world settings, provide new perspectives, and offer essential breaks from routine. Unfortunately, schools across the US are cutting field trips because they can't afford student transportation and admission fees and administrators don't always see a connection between out of classroom experiences and achievement in high-stakes testing.

"Ticket to Ride" is a program initiated by the National Park Foundation to bring class groups back to National Parks. ERIE was the only national heritage area to receive a TTR grant when the program was established in 2012. About 2,000 students participated that first year. More than 11,000 have participated since. They have come from more than 70 primary and early secondary schools in 40 districts across the state. The number of host museums and sites has increased from three to eight.

Erie Canalway Ticket to Ride provides opportunities for school children to get outside, appreciate important canal sites first-hand, and link these resources back to their local communities. Students learn how boats and cargo were weighed (Erie Canal Museum); consider the engineering and hydraulic challenges of carrying a canal over a river (Schoharie Crossing State Historic Site); experience how boats were built and repaired (Chittenango Landing Canal Boat Museum); climb the Niagara Escarpment and ponder the engineering required to build and operate a staircase flight of five locks (Erie Canal Discovery Center) and participate as "amateur archeologists" as they dig, clean, and catalog "found objects" (Chittenango Landing Canal Boat Museum). Other museum partners include: Seneca Museum of Waterways and Industry, Historic Palmyra Museums, Waterford Museum, and the Museum of Innovation and Science (MiSci) in Schenectady.

The program varies from site to site but each program is grounded in a common three-touch approach that includes 1) on-line pre-visit curricula developed by the Albany Institute of History and Art, 2) on-site field trips to explore the canal features, and 3) post-visit document based questions that reinforce lessons learned.

The average subsidy for bus transportation, admission, and program fees is about $11 per student. This is significant when you consider that many of their schools are in financially strapped urban or rural districts with underserved student populations. The majority of kids at 60% of the participating schools are eligible for some form of public assistance.

Initially funded by a start-up grant from the National Park Foundation, TTR continues to grow with additional support from banks, utilities, and the state's largest teachers' union.

New York State Canal Corporation is the agency that owns and operates the Canal System. While Ticket to Ride transports students to canal sites, the Canal Corporation brings a museum to the kids.
The tugboat *Urger* was built in 1901 for service on the Great Lakes and acquired by New York State in 1921 to work on the canal system. After years spent moving dredges and scows, by the 1990s the boat appeared to be nearing the end of its useful life. Although it had been converted from steam to

diesel after World War II, it had antiquated controls and was underpowered by modern standards. Despite serious proposals to cut the old tug up for scrap, the *Urger* survived, was listed on the National Register of Historic Places in time for its 100th birthday, and now carries the flag for New York Canals from New York Harbor to the Canadian border.

The *Urger* is a colorful feature of canal festivals and events throughout the summer. The tug plays host to school groups in the spring and fall, when classes are in session and the big public events abate, There isn't a lot of space on a tugboat. It is mainly a big engine with just enough hull to keep it afloat. Kids love to tour the *Urger*, but most of the educational programs take place nearby on land.

Lake Champlain Maritime Museum launched the canal schooner *Lois McClure* in 2005. Based on underwater archeology at a number of wreck sites, Lois McClure is an accurate replica of sailing canal boats that carried cargo through an interconnected system of lakes and canals in New York and Canada's Province of Quebec during the 19th century. Lois McClure's crew and volunteers have provided exciting and engaging public and school programs throughout those waterways, with community coordination and logistical support from Erie Canalway NHC and NYS Canal Corporation on the New York system and Parcs Canada when she travels up north.

Thriving schools and cultural organizations are key indicators of healthy communities and are fundamental to a region's quality of life. By creating deep connections between the inland waterways, underserved school districts, younger generations, and the region's education partners and museums, Erie Canalway's Ticket to Ride, New York State Canal Corporation/s *Urger* and Lake Champlain Maritime Museum's *Lois McClure* programs are working to foster a sense of community and pride of place among students and their families.

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The inundation of the IJzer plain during the First World War: a brief history and related sites to visit today

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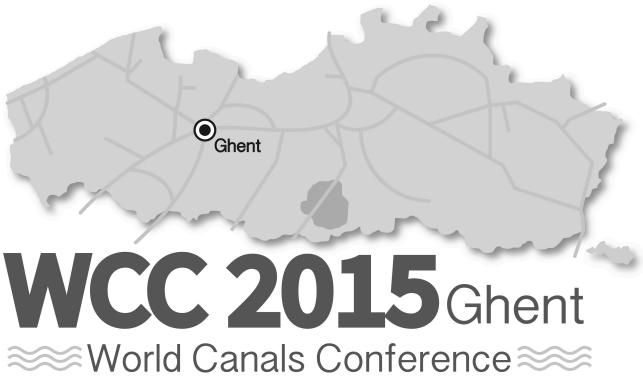
ABSTRACT
Water played a crucial role in the First World War. In October 1914, the IJzer plain and front region was flooded in an ultimate attempt to stop the German invasion. The superintendent of the Northern Waterways Karel Cogge from Veurne knew how this network of canals, streams and overflows was linked to the River IJzer via the locks at the Goose's Foot complex in Nieuwpoort. Ship's master Hendrik Geeraert knew how to open the flood gates. The water level rose and via this network, seawater overflowed parts of the Yservalley. As a result, the Germans were forced to retire and this sector of the front remained stable until the final liberation offensive in 1918. Today, many sites remind us at this dramatic time in history. Since 2014, Flanders remembers the great war centenary, and many tourists visit the Flanders Fields region. Several museums underwent major renovation work, ensuring the visitors the very best facilities and an optimal experience, enabling the visitor to comprehend the crucial role of the landscape during the war. In the autumn of 2014, a brand-new visitors centre Westfront opened near the Goose's Foot in Nieuwpoort, which houses a permanent exhibition explaining the important role played by this locks in the flooding of the IJzer plain during the First World War. A map was developed that offer a varied boating route through Flanders Fields, but one that you can easily adapt to suit your own needs and interests. The route passes along some of the most poignant WWI-sites in Nieuwpoort, Veurne, Diksmuide and Ypres. This presentation will focus on a short presentation of the remembrance project in Flanders Fields, a brief history of the inundation of the IJzer plain during the First World War and an overview of the different sites and routes that relate to the history of the inundation and can be visited today.

KEYWORDS
Inundation of the IJzer plain, First World War, Flanders Fields, related sites and routes

27th World Canals Conference

Theme 4:
Waterways in Ecological Perspective



Reconciling ecology and economy: smart ecology restoration based on functional win-win situations

Stefan Van Damme, Patrick Meire

ABSTRACT

The global loss of biodiversity has led to many juridical measures, aiming to stop this loss. A trend from protection to restoration has lead to main head structures such as the Flemish Ecological network and the Natura 2000 network. However, gradually more opposition has grown against these approaches and the strategy of restoration is questioned. The central idea is that nature protection and development blocks economic development. In Flanders, an alternative strategy to reconcile economy and ecology is emerging. Examples are shown to illustrate how nature restoration or management can deliver economic values for human society. Functional ecosystem analysis, rather than command-and-control management towards individual habitats or species, is the keystone for this successful approach.

Climate change impacts on water management

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ABSTRACT

Climate change projections show gradual changes in temperature and evaporation and increased temporal variability in precipitation for many places worldwide. To assess the impacts of these meteorological changes on water systems, outputs from global and regional climate models are downscaled to the local scale. These impacts show strong regional differences and depend on the type of water system. Results for Belgium, for instance, show potential increase in peak flows and flood risks along rivers during the wet winter season; decrease in low flows and water availability in the dry summer season; and increase in extreme summer thunderstorms and related sewer floods in urban areas. Increased temporal variability in river flows and corresponding increased river and sewer flood risks and decreased water availability, is also observed as a result as the ongoing urbanization trends. Along coastal areas and estuaries, there is a strong increase in the flood risks due to the sea level rise and potential increase in storm surge levels.

These changes may have strong socio-economic and ecological consequences. One of the major concerns in Belgium are the lower water availability, which will impact domestic, industrial and agricultural water supply, canal supply, navigation, water quality en ecology. Another concern is that cities are becoming increasingly vulnerable to urban flooding.

At the same time, due to the difficulties and uncertainties in climate change impact modelling and analysis, caution must be exercised when interpreting climate change scenarios. These uncertainties can however not be used as an argument for not taking determined actions. Instead, uncertainties should be accounted for and flexible and sustainable solutions aimed at.

Interestingly, climate change serves as a driver for changes in water management paradigm. An adaptive approach has to be established that both provides inherent flexibility and reversibility and also avoids closing off options. Also co-optimizing infrastructure with other objectives as well as active learning and involvement will become ever more important to keep our cities and areas liveable in the future.

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Tourism and wildlife conservation – incompatible?

Tourisme et consercation de la faune – incompatibles?

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ABSTRACT
The region of Leipzig, which is characterized by a highly branched water network and broad floodplains, was strongly influenced by previous opencast mining. By closing most of these opencast mines after the German reunification, the need arose to revalue the barren and heavily polluted landscapes ecological, what also offered the opportunity for using the newly created landscapes for tourism and recreation. This results in an ambitious project: to develop mining into tourism. The existing river landscape and newly created mining lakes offered an ideal basis. However, reshaping and tourist use of the waterways are severely restricted by nature conservation act. High anthropogenic pressure of use competes with nature and wildlife conservation. Using the example of the kingfisher, the potential for conflict between conservation and water tourism is explained as well as how the city of Leipzig currently deals with it respectively attempts to combine the two different interests.

KEYWORDS
Ecology; FFH/SPA Directive; tourism; wildlife conservation

TOPICS TO BE ADDRESSED
Waterways in ecological perspective

TOURISM AND WILDLIFE CONSERVATION – INCOMPATIBLE?

The City of Leipzig, located at the highly branched water node of the rivers Weiße Elster, Pleiße and Parthe, is characterized by an expanded floodplain, which runs right through the city. The region of Leipzig is also strongly influenced by opencast mining, which 25 years ago meant: barren/dead landscapes, heavily polluted water, no recreational value and thus for humans hardly usable areas. Until 1990 the Rivers Weiße Elster and Pleiße have been the most polluted rivers in Europe.
After the political changes, when the eastern and the western part of Germany have been reunited, most opencast mines were closed. This paved the way to improve the poor environmental conditions, which prevailed until then. Since the early 1990s, a consensus on the future design of Leipzig's brown coal area has been reached, which is unprecedented in this region. Due to cooperation of miners, local communities, regional planners, tourism experts, conservationists, hydrologists an many other specialists the headstone for the „Leipziger Neuseenland“ – a tourist watercourse cooperative – was founded. The challenge of this project and especially its potential for the region of Central Germany, must be borne in mind, as mining is developed into tourism and existing rivers are cleaned up, remodelled and connected with mining lakes.

As part of the nature conversation act in 1998 the whole floodplain forest of Leipzig was designated as landscape conservation area (ca. 5900ha). In 2004 large parts of the floodplain forest have been officially recognised as conservation area by the EU (total area: 2825ha), in 2006 almost all of the landscape conservation area “Leipziger Auwald” was also designated as a same name SPA (4925ha). These measures to protect the nature, of course do not remain without consequences for the regional development, especially with regard to tourism. The high use pressure for recreation seekers and amateur (water) athletes competes with nature and wildlife conservation. Here solutions must be found, which satisfy both sides.

Using the example of the kingfisher, from which in the SPA “Leipziger Auwald” are found regularly 2 to 10 breeding pairs, the potential for conflict between conservation and water tourism on Leipzig's waterways is to be explained in more detail below.

The kingfisher is one of the target species of the SPA “Leipziger Auwald” and also belongs to the Red Data Book-Species of Saxony (category 3: “endangered”), which grants him a special protection. The kingfisher requires, in addition to a consistently high water quality (visual depths up to 1m), unspoilt shore areas and low flow rates, especially calmness. With the development of water tourism of the City of Leipzig, whose courses in majority are leading through Natura2000-protection areas of Leipzig's floodplain system, the frequenting of all kinds of watercrafts has substantially risen. In order to offer the kingfisher the required calm for breeding, significant restrictions have to be accepted by the water sports enthusiasts as well as by operators of boat rentals and guided boat tours. So certain sections of the watercourses are not passable during breeding season, others are only allowed to pass by human-powered boats and/or only during very limited time frames.

Wildlife conservation serves, in addition to the preservation of the currently existing population, also the future increasing of the population of protected species. Therefore results in consequence further restrictions on the anthropogenic use of waterways. The more individuals of protected species settle down because of improved environmental conditions, the more space they are needing to breed. Observance of the minimum distances from nests, nesting sites and other important habitats for the animals, thus also leads to further restrictions on the use of the respective areas by people (pedestrians, cyclists, water sports enthusiasts etc.).

By strict interpretation of existing species protection laws (FFH/-SPA, Natura2000-protection areas, Nature Conservation Act), an anthropogenic use of watercourses and their surrounding environment would be largely excluded. It is therefore essential to find practicable compromises, which are useful for both sides. To this end, recommendations for action respectively adjustments within the Nature Conservation Act have to be derived, which are applied consistent and uniformly throughout Europe and ensure a peaceful and respectful coexistence of man and nature respectively of recreation and wildlife conservation.

Regarding the kingfisher the following measures have proven to be effective and workable in Leipzig until now:

- The establishment of off-times for the use of certain water sections during the breeding
kingfisher can breed largely undisturbed while water athletes and tourists are
leisure activities an hourly basis.).
- The use of water adapted boats (“LeipzigBoot” - low-emission drive and shallow draft to reduce the wave formation)
- The creation of replacement breeding grounds for the kingfisher at suitable locations. If these have been successfully adopted, the natural shore walls, which are appropriate for breeding but unfavourable for water tourism, can be eliminated.

Storm surge barrier Newport

ir. Isabelle D'hooghe ; ir. Gunther Pauwels
Agentschap Maritieme Dienstverlening en Kust

RÉSUMÉ

ABSTRACT

The realization of a storm surge barrier in Newport at the harbour entrance is a part of a global plan, the Masterplan coastal protection. The coastal division of the Flemish government set up that plan to protect the whole coast (app 60 m) against heavy storms and heavy storm tides. It was approved by the minister in june 2011.

Planning
The coastal division(MDK – Afdeling Kust) contracted out the study for the storm surge barrier in November 2012. In February 2013, Arcadis (Netherland and Belgium) started with the study. At this time, the study is finished. We expect to start to build at the end of 2017.

Ships
Dredgers have to pass the barrier to dredge the harbour entrance and the marina's. Also sand winning ships enter. About 2000 yachts can stay in the marina's.

About the structure
Our rising sector gate has a span of 38m. The distance between the east and west side is about 110m. The barrier, of rolled and welded steel, consists of two plates with on top the flap. The movable steel flap rotates to a horizontal axis and stays in rest position in a concrete sill at the bottom of the river Ijzer (-4,65mTAW). The flap rotates between two cast steel axles which are anchored in a concrete pier.
A Hydraulic system is used to move the barrier 90 degrees (storm conditions) or 180 degrees (maintenance). The piers are well founded on steel piles so that the movements are minimal and the working of the barrier can be guaranteed.
The barrier will be closed by a prediction of a water level of +6mTAW. This is expected every two years. Yearly there will be a test closure and every two weeks the hydraulic system will be tested.

KEYWORDS

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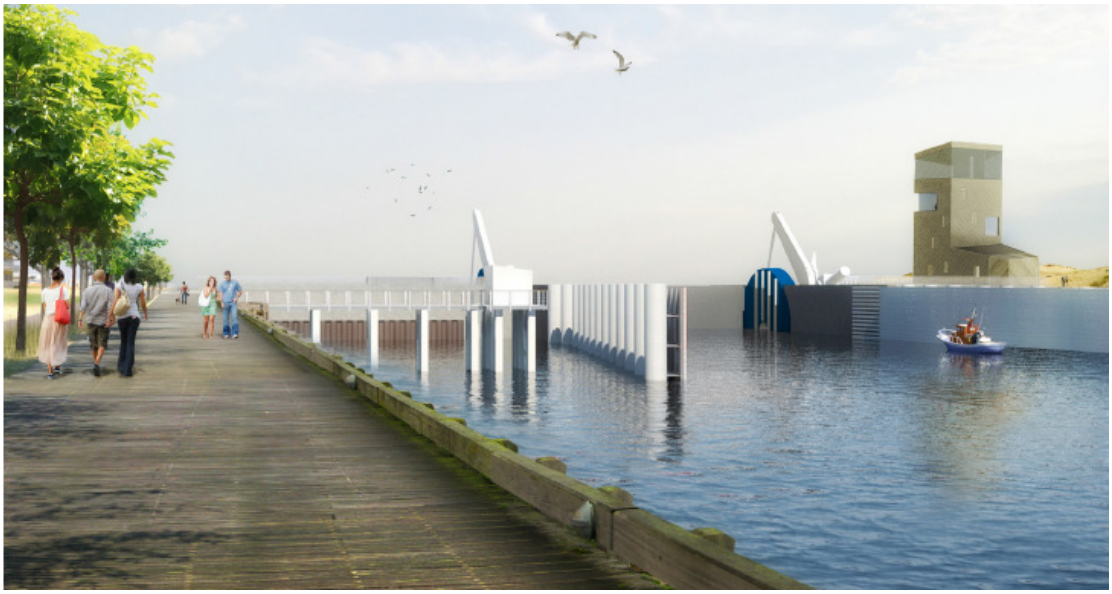

WSG technology in the service of waterways and hydrotechnical engineering

János Major, MSc, PhD, Dr. habil.
World Strong Guard Technology

ABSTRACT

The paper starts with presenting the damage mechanisms of hydrotechnical construction and goes on presenting the WSG products and their area of use.

The high value added, innovative, independent, domestic designed products that are basically cement based, are exposed to the effects of environment and the WSG technology provides the durability of outdoors and indoors structures and ensures their usage lifetime.

By making use of the WSG products you increase the durability of water utility structures—drinking water, water reservoirs, thermal water, swimming pools, tanks, pipelines—furtherly all building structures that were damaged by ground-water, precipitation or floods. By using the products you can manufacture insulating, watertight mortar or concrete that resist the aggressive materials.

WSG products are effectively used as saving material in case of natural catastrophies, for example you can decrease the damage caused by petroleum and its derivatives with an environmental friendly technology: with the help of the products the polluting substances can be collected/removed from water surfaces or solid material surfaces, and thus the environment is handled protectively.

WSG products are environmental friendly materials that are recyclable!

WSG Kft. is committed to development of medium and high level education, related to environment and practice orientation. They wish to invest their decades long experiences in the shaping of the environment in laying the foundations of an international education institution (MSc).

Towards an Improved Business Relationship – Waterpower on Parks Canada Canals

Vers des relations d'affaires améliorées – hydroélectricité sur les canaux de Parcs Canada

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RÉSUMÉ
Les canaux de Parcs Canada ont plus de 200 barrages et on présentement 24 développements hydroélectriques en exploitation, générant environ 1.3 millions de dollars en revenus chaque année. Le potentiel d'augmenter l`hydro en partenariat avec l'industrie représente une source viable de revenus à long terme pour la gestion des canaux. Au cours des deux dernières années, Parcs Canada, en partenariat avec l'Association Ontario Waterpower a examiné notre relation avec l'industrie dans quatre domaines essentiels, 1) la libération du site, 2) les permis et licences, 3) les revenus et les frais de ressources, et 4) communications. Plus de 40 recommandations détaillées ont été acceptées et leurs mise en oeuvre est en cours. Déjà par la standardisation d'une formule de revenus, la gestion des voies navigables bénéficie de renégociations de baux plus efficients et efficaces. En outre, l'industrie a identifié le développement hydroélectrique sur les canaux comme priorité et le Programme de tarifs de rachat garantis provincial, conçu pour créer des incitations à la production hydroélectrique, est disponible pour soutenir le développement hydroélectrique sur les canaux fédéraux. Ce document présente les résultats de ce travail et se concentre sur les principales recommandations qui peuvent être avantageux pour les opérateurs de canaux à l'échelle internationale.

ABSTRACT
Parks Canada canals have over 200 dams and currently 24hydro developments in operation, generating approximately $1.3 million in revenue annually. The potential to grow hydro in partnership with the industry represents a viable source of long term revenue for canal management. Over the past two years Parks Canada, in partnership with the Ontario Waterpower Association have examined our relationship with the industry in four critical areas, 1) Site release, 2) Permits and licenses, 3) Resource revenues and fees, and 4) Communications. Over 40 detailed recommendations were agreed to and implementation is underway. Already through the standardization of a revenue formula, waterways management is benefiting from more efficient and effective lease re-negotiations. Additionally, the industry has identified hydro development on canals as a priority and the provincial government feed and tariff program, designed to create incentives for hydro production, is available to support hydro development on federal canals. This paper will present the results of this work and focus on key recommendations, which may be of benefit to canal operators internationally.

KEYWORDS
Canals, Dams, Hydro, Partnerships, Revenue

TOPICS TO BE ADDRESSED
Waterways in economical perspective, Waterways in ecological perspective

TOWARDS AN IMPROVED BUSINESS RELATIONSHIP – WATERPOWER ON PARKS CANADA CANALS

Background

Parks Canada manages 9 historic canals containing over 200 dams and water retaining structures. As part of its responsibilities water is managed in watersheds totally over 22,000 square kilometres for the purposes of safe boating, float abatement, residential and commercial purposes and hydro generation. There are 27 current hydro agreements on canals in Ontario generating ~100MW of energy and $1.3million in revenue annually which is retained locally by canal managers for reinvestment into tourism development and other priorities. The Ontario Waterpower Association represents over 150 companies active in the hydro electric sector in the province of Ontario and they focus on advancing positive and productive relationships with government. All parties entered into these discussions and negotiations recognizing increased coordination would result in mutual benefits.

Committee Structure

A Federal Task Force Executive Steering Committee with representatives of Parks Canada and the Industry was established. Four critical areas were identified for in-depth examination: 1) Site release, 2) Permits and licenses, 3) Resource revenues and fees, and 4) Communications. A total of 18 water management, hydro producers, and realty experts participated on four task teams over the course of approximately one year. Each task team focused on documenting the current state (e.g. policies, protocols, procedures); evaluating the approaches taken by other jurisdictions, notably the provincial government, assessing alternatives; and providing advice and recommended improvements. Importantly, the analysis and advice presented was undertaken collaboratively, and the result was consensus on the key recommendations. The process in and of itself has created momentum with respect to an improved business relationship between the parties. A focus on advancing key priorities in the near term is expected to maintain and grow this momentum.

Results

Specific recommendations were made resulting from the work in each critical area however given the inherent interrelationship between the themes, a number of common observations and recommendations were made. There was a clear recognition of shared financial interest in optimizing existing water power production and expanding development opportunities as well as a need to build on the existing consistency between federal and provincial instruments, policies and procedures. The need to formalize and institutionalize communications policies, procedures and protocols in a number of critical areas including water management, annual capital investment and public safety was identified. Finally, the need to define the parameters by which opportunities for shared investment in water management infrastructure can be explored and pursued for mutual benefit was identified.
Within the work of each committee the following recommendations have been considered critical and work has begun on many of them.

Site Release and Development - This working group focused on how canal sites are made available to developers. The industry seeks certainty, clear policy, stability, transparency and equity while from a federal perspective the elimination of one-off proposals towards a more strategic offer to the industry was desired. The following key recommendations were made:

· Complete the inventory of potential waterpower development sites on federal waterways. Current status: An inventory has been completed by Parks Canada.

· Make development opportunities available on a systematic basis. Current status: Eight new sites have been released publically for development. This release was timed to ensure development on these sites could fit within the provincial large renewable procurement program which provides incentives for development.

· Make new development opportunities available through a competitive process for large sites and unsolicited for smaller sites. Current Status: Policy is in development to support unsolicited proposals for <1MW projects in alignment with the provincial feed-in-tariff program and to ensure a competitive process for larger projects through the large renewable procurement.

Permits and Licences - This working group focused on modernizing the terms and conditions to existing and future water power licences: Key recommendations included:
· Develop a standardized operational agreement template and include it as part of all licences. These agreements would clearly specify operating procedures and flow management under a variety of scenarios. Current Status: Parks Canada and the industry have had several meetings on this and a draft operating agreement has been established. As licences are renewed the new operating agreement will be applied.
· Develop joint strategies and policy to optimize water power production and guidance on cost sharing and capital improvement investment. Current Status: Examples exist where the industry has supported capital improvements of mutual benefit however this has been done outside of policy. Work is ongoing to develop a policy which considers revenue rebates, or other alternatives for capital investments by the industry in federal infrastructure.

Resource Revenues and Fees - This working group focused on determining fair market rent which represents a good return to the crown and fairness to the industry as well as consistency amongst hydro producers. Key recommendations included:
· Harmonize provincial waterpower rental regulations as federal policy to the extent possible and practical to achieve greater consistency from an industry perspective. Current Status: The provincial rental policy has been adopted by Parks Canada and work is ongoing to adopt similar application and development fees as the province.
· Adopt the rental rate of 9.25% of gross revenue per megawatt hour for new licences, and upon rent review and expansion for existing waterpower facilities. Current Status: This has been adopted and implemented with success during the renewal of an existing licenses. Of note unlike the province Parks Canada chose not to give any rental "holiday" for new producers which was accepted by the industry and ensures revenues come to Parks Canada immediately.

Communications and Information Management - This working group focused on improving communications between government and the industry. Key recommendations included:
· Develop and share emergency preparedness planning and public safety measures collaboratively to the extent possible and practical. Current Status: Several key discussions and information protocols have been shared.
· Standardize key information with respect to contacts, communications methods, protocols and processes across industry and federal facility managers. Current Status: Becoming the norm as part of the semi-annual meetings.
· Leverage and share federal and industry use of communication and information management tools. Current Status: Ongoing

The work completed as part of this Federal Task Team has improved significantly the coordination and relationship between Parks Canada and hydro producers. It has already resulted in increased revenues for Parks Canada and is expected to help Parks Canada's financial sustainability goals as well as contributing the provincial goals for green energy.

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27th World Canals Conference

Theme 5:
Waterways in Touristic-Cultural Perspective

WCC 2015 Ghent
World Canals Conference

Burgundy – France: an innovative governance to boost the touristic development of the waterways

La Bourgogne : une gouvernance innovante pour dynamiser le tourisme fluvial

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RÉSUMÉ
La Bourgogne (France) est mondialement célèbre pour ses vins. Mais savez-vous qu'elle est également traversée par 1000 km de voies navigables ? Pour valoriser cet autre atout touristique, le Conseil régional de Bourgogne a adopté en septembre 2012 une stratégie de développement touristique en faveur de ses canaux et rivières navigables. L'ambition est de faire de la Bourgogne une véritable destination touristique fluviale durable. La stratégie promeut des concepts nouveaux pour atteindre cet objectif et notamment la mise en place d'un mode de gouvernance innovant : le contrat de canal ou contrat de développement fluvestre. Fédérant les acteurs publics autour d'un projet commun, le contrat est un plan d'action pour 5 ans, déterminé à l'échelle d'une voie d'eau et bénéficiant également au secteur privé (prestataires touristiques, loueurs de bateaux ou de vélos…). Il s'adapte à chaque canal ou rivière navigable, en fonction de ses spécificités. Un état des lieux, des objectifs et un plan d'action y sont détaillés, ainsi que les engagements de chacun. La gouvernance (le "qui fait quoi ?") est également organisée.
A ce jour, un contrat de canal a été signé avec le canal du Nivernais, un autre est en cours d'élaboration pour la rivière Seille et deux autres sont en débat pour le canal de Bourgogne et pour la Saône.

ABSTRACT
The French region of Burgundy is internationally renowned for its wines. But did you know that 1000 kms of sailable canals and rivers run across Burgundy? This additional touristic attraction led to a decision from the regional council of Burgundy to vote for a strategy of touristic development for its waterways in September 2012.
The objective is to firmly place Burgundy as a sustainable touristic destination for boating holidays. New concepts are initialised to ensure that this objective is met, in particular, the implementation of an innovative governance system: the "canal contract" or the "waterways development contract".
This contract draws each public stakeholder around a common project. This 5 years action plan is scaled specifically for waterways and is equally beneficial to the private sector (touristic service providers, boat or bike hire providers…). Each contract is bespoke to the waterways' specifications, bringing a response to any local difficulties or missed opportunities.
The contract details the current conditions, the objectives, the action plan and the engagements of each party. The process identifying each party's participation is also included.
To date, one "canal contract" has been signed (in favour of the Nivernais canal), another contract is being drafted for the river "Seille", and two others are being discussed for the waterways in Burgundy and the river "Saône".

KEYWORDS
Governance, innovation, local development, strategy, tourism

TOPICS TO BE ADDRESSED
Waterways in cultural-touristic perspective

UNE GOUVERNANCE INNOVANTE POUR LES CANAUX BOURGUIGNONS

La Bourgogne est une destination touristique majeure dont la notoriété mondiale repose principalement sur ses vins. Elle bénéficie en outre d'un important réseau de voies navigables qui attire chaque année une clientèle importante, principalement étrangère. Ses 1000 km de canaux et rivières, au cœur du réseau fluvial européen sont, incontestablement, le deuxième atout de taille de la Bourgogne. La région se situe parmi les 3 premières destinations fluviales en France, en proposant une offre d'activités très variée : bateaux de location, péniches hôtels, bateaux promenade, mais également chantiers navals et paquebots fluviaux.

Un large réseau de véloroutes, connecté aux itinéraires nationaux et européens, vient compléter cette palette. Les cyclotouristes sont désormais nombreux à longer les rivières et canaux bourguignons à vélo.

Ces deux secteurs rapporte chaque année des retombées économiques conséquentes : elles sont estimées à 47 M € pour le tourisme fluvial et 93 M € pour le cyclotourisme.
Dans un contexte de concurrence nationale et européenne accrue, le conseil régional de Bourgogne développe depuis 2010 une politique volontariste sans précédent en faveur de ses voies navigables. Il agit en tant que chef de file du développement économique, dont le tourisme représente une part significative.

En septembre 2012, une stratégie de valorisation touristique des canaux et rivières navigables de Bourgogne a été adoptée par le conseil régional, permettant de déterminer :

- Les atouts et les faiblesses du réseau,
- Les enjeux liés à ce secteur économique,
- Les propositions d'actions à mettre en œuvre en réponse à ces enjeux,
- Une nouvelle forme de gouvernance pour l'ensemble du réseau navigable de la région.

La finalité de cette stratégie est de faire de la Bourgogne une destination touristique fluviale majeure, dans une logique de développement durable. Elle a également pour ambition de répondre aux attentes des clientèles (plaisance, cycliste, tourisme de proximité…), en favorisant les retombées économiques pour les territoires irrigués. Enfin, la stratégie porte sur les activités fluviales, mais également sur les activités se pratiquant au bord de l'eau : pêche, randonnée…
L'une des conditions de la réussite de la stratégie est un mode de gouvernance innovant. Chaque acteur doit agir en faveur du développement touristique fluvial dans son propre champ de compétence (par exemple : promotion touristique, modernisation et exploitation de l'infrastructure, animation des réseaux d'acteurs…).

Dans sa stratégie, le conseil régional propose pour toutes les voies navigables de Bourgogne, la mise en place de « contrats », qui sont conclus pour 5 ans, et de manière spécifique à chaque linéaire.
L'ensemble des acteurs d'un canal est invité à s'organiser et à réfléchir au développement touristique de sa voie d'eau à moyen terme. Quels équipements (ports et haltes nautiques) sont nécessaires, prioritaires ? Quels services (hébergements, commerces, lieux de restauration…) doivent être développés et où ? L'offre de loisirs est-elle suffisante ? Comment faciliter l'accès des touristes aux autres sites d'intérêt du territoire ? Comment mieux les informer ?

En répondant à ces questions, un plan d'actions est déterminé pour chaque canal, représentant une déclinaison locale de la stratégie régionale. Le contrat comporte également le mode de gouvernance propre à son territoire : qui pilote et anime le contrat ? Qui porte les investissements prévus ?

Le conseil régional apporte un soutien financier aux projets d'investissement prévus dans les contrats, suit leur mise en œuvre et favorise l'émergence de ces contrats sur tout le territoire bourguignon.

Chateauneuf-en-Auxois – canal de Bourgogne

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Waterways in cultural-touristic perspective: London –A case study

Les voies navigable dans une perspective culturelle et touristic: Le cas de londre

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RÉSUMÉ
Londres est fondée par les Romains au point le plus aval de la Tamise permettant de jeter un pont entre ses deux rives. Les Saxons aménagent plus tard leur débarcadère plus en amont. Les Normands construisent à la fois un château et une abbaye long de la rivière. Londres s'étend à l'époque médiévale pour englober ces deux monuments. Les monarques Tudor construisent leurs palais royaux aux bords de la Tamise. Après le grand incendie de Londres, la pierre de taille nécessaire à la reconstruction de la cathédrale Saint-Paul est livrée par voie d'eau. Les marchands de la ville prospèrent et développent leurs réseaux commerciaux dans le monde entier. Les Docks de Londres sont construits pour faciliter ce commerce, tandis que les canaux sont construits et servent de «feeders» pour répondre aux besoins croissants de la métropole. Les Londoniens sous la Reine Victoria embrassent les arts, et de riches collectionneurs créent des parcs, des musées et des galeries. Aujourd'hui 35 millions de touristes affluent à Londres pour profiter de la scène culturelle. La Tamise et les canaux de Londres offrent à ces mêmes touristes l'occasion d'explorer le grands sites historiques et culturels de Londres. Ces touristes bénéficient d'un incroyable éventail de services lies au transport par voie d'eau, répondant à tous leurs besoins. Cette présentation explore ces services et les équipements associés, ainsi que leur interaction avec des sites culturels du bord de l'eau à Londres.

ABSTRACT
London was founded by the Roman's at the lowest bridging point on the Thames. The Saxons later developed their boat landing place further upstream. The Normans built both a Castle and an Abbey alongside the river. London expanded to embrace both of these in Medieval times. The Tudor monarchs built their royal palaces beside the river. After the Great Fire, the stone to rebuild St Paul's Cathedral was delivered by river. City merchants prospered and expanded their trade networks throughout the world. The London Docks developed to facilitate that trade and the canals provided a backdoor trade route to service the growing needs of the metropolis. Victorian Londoners' embraced the arts and wealthy collectors created parks, museums and galleries. Today 35 million tourists flock to London to enjoy its cultural stage. The River Thames and London's Canals offer those self same tourists the opportunity to explore what is best of London's history and culture. Those tourists are offered an amazing range of water based services to meet their every need. This presentation explores those facilities and their inter-relationship with London's waterside cultural sites.

KEY WORDS
Boat Trips, Bridges, Docks , Landmarks, Palaces

Waterways in cultural-touristic perspective: London – A case study.
Water based tourism offers a unique link with London's history. National Statistics show that 16.8 million foreign tourists come through London each year and their numbers are growing at 2.5% pa. London as a city offers a vibrant mixture of historic buildings, galleries, museums and libraries, theatres , and shopping streets, together with an amazing range of public parks. Because of this variety of venues on offer, competition for the tourist pounds is quite intense. The River Thames connects many of the major historic sites and provides an unrivalled 'tourist trail'. To meet the various demands, London's water-based tourist industry combines the facility for packaged tours, bespoke trips and self organised journeys. It also is a centre of innovation, with the new high speed 'Rib Experience' contrasting against the Second World War amphibious vehicles, all serving those who seek something different.

The National Maritime Museum at Greenwich, together with the Royal Observatory and the preserved Tea Clipper, 'Cutty Sark', provide a downstream focus for the majority of river boats. Tower Bridge and the Tower of London offer another major focus. Views of St Pauls Cathedral and the replica Globe Theatre are gained en route for Westminster. Here the Houses of Parliament on one bank are opposite the London Eye. The two river piers at Westminster are the starting point for many river trips, with the water buses [Thames Clippers], offering regular scheduled services, and bespoke trips, all covering this route.

Further upstream, Hampton Court Palace is the destination for longer trips. Thames river boats, in 2014 transported 3019K passengers. The River Buses [Thames Clippers] carried another 3443K passengers. Downstream, the Woolwich Ferry took 1948K passengers across the river. A Grand Total of 8411K Thames-based passengers in 2014.
In addition some 40 Cruise Liners had London as a port of call, adding to the tourist base.

London's canals once provided an additional route for London's trade. Now these offer tourists the chance to explore the 'backdoor' of London, or see the new Olympic Park. A combination of water buses, restaurant boats, party boats and bespoke tours, cater for a wide range of needs on the canals. In the past two years there has been a substantial increase in the number of operators of such trips. In addition, London has a range of 'community boats' geared to the young. These offer them day trips, or longer voyages, especially in the summer months. The Community Boats carried 60K passengers in 2014. Charter and Trip Boats on the canals another 25K, whilst the London waterbus service carried some 86K. Once a year, in May, a major canal boating festival is held at London's Little Venice. This draws visiting craft from far and wide and provides a colourful tourist attraction for Spring visitors.
Overall, London, as a tourist focus, offers a dynamic range of waterway touristic opportunities. It is good to see these growing annually. These supplement the wide range of cultural opportunities that make London a major tourist centre in Europe.

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Connecting the Dots - Developing a Heritage Network in the Schelde Valley

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ABSTRACT

In Flanders, the so called art cities (Antwerp, Bruges, Brussels, Ghent, Leuven and Mechelen) are very important for tourism. 53% of all arrivals and 40% of all overnight stays take place in these six cities. Heritage and culture are the strongest motivations to travel to the art cities, where tourists find a high density of points of interest combined with shopping facilities and the specific atmosphere of the historical yet lively city centres. Some green areas in Flanders however are also rich in unique heritage. But the points of interest are more dispersed in the landscape and each on their own, they are not considered to be "worth the journey". However, if the most interesting 'dots' would be connected, and integrated and promoted as one qualitative tourism product….

The Flemish regional government has decided to stimulate the development of a network of heritage sites (historical houses and castles, religious patrimony, archaeological sites) in the Schelde Valley. The development of such a network can become a leverage project for international tourism that creates a strong reason to come complementary to the assets of Antwerp and Ghent. The Schelde valley could induce a prolongation of stay and function as a spill-over for tourism in the art cities, thus avoiding they become overcrowded in the long term.

The Italian tourism district Riviera del Brenta might very well serve as a best practice for the Schelde Valley. In fact, this area along the Brenta canal between Venice and Padova, has been for ages a popular summer holiday destination for rich Venetians that had the architect Palladio design and built their villa's there, and has since the early nineties become a mere satellite for Padova and, in particular, for Venice. The hotels along the Riviera are used by what are called 'false excursionists' because they are much cheaper than similar establishments in Venice or Padova. The Riviera del Brenta has lost its competitiveness: its primary tourism product losing its dignity, and its secondary tourism product losing the ability to ask premium prices having lost their competitive edge with respect to budget hotels and restaurants in Mestre and Marghera.

Recently, a decision was taken to reverse this apparently unstoppable process of decline. First of all, the core of the primary product was redefined, repositioned and the brand of the area transformed. The main themes are now: slow, green, handicraft & traditional manufacturing (shoes, in particular), biking and hiking, monumental villa's, 0 km and enogastronomy. This allows the destination to offer its visitors a unique experience that is complementary to the mainstream destinations Padova and Venice and is attractive enough to draw people from those destinations to the Riviera, making tourism in both cities of art more sustainable and tourism in the Riviera del Brenta more profitable. An app for smart phones and tablets (Delizie della Riviera del Brenta) communicates the relaunched destination.

There are however still a number of challenges. First of all, a revision of the external and internal accessibility is needed. There are but a few connections with Padova and Venice and with the principal international hubs, in particular with the airports of Bologna, Treviso, Venezia, and Verona, and the cruise terminal. Moreover, the internal accessibility of the area is poor: the water transport along the canal is obsolete, signposting is absent, bike lanes and hike trails are missing. Secondly, the overall brand Riviera del Brenta is not appealing enough for foreign visitors and "Fiume di Ville" (translated a River of Villa's, but in Italian meaning an abundance of villa's) seems a more appropriate brand.

Coming back to the Belgian case, up till now the project of the Schelde Valley is only a dream, a concept, with the river as the natural, historical and symbolical connection between the dots. Creating the actual network of heritage sites will take a lot of work, consideration and especially cooperation. Some 'dots' are privately owned, others are the property of local bodies. The dots must be physically connected by route structures (car, cycling, walking) but also symbolically in one brand (stories, branding, …). An integrated approach is needed to develop a tourism product with international

potential. Policy theme's such as environment, heritage, waterways, tourism and recreation, mobility, civil engineering, entrepreneurship, hospitality etc. will have to be matched creating an attractive combination of experiences (nature, culture, gastronomy…) Visit Flanders will support this process.

KEYWORDS

Tourism, product development in tourism, nature and heritage, The Schelde Valley

TOPICS TO BE ADDRESSED

Waterways in a cultural-touristic perspective

Newbuilding of the slope at the sluice complex Ganzepoot

ir. Niels Vanmassenhove

ABSTRACT

The sluice complex called “de Ganzepoot” at Nieuwpoort at the mouth of the river Yzer is very known for is crucial role during WW I. On the 26th October 1914 one of the sluices of this complex was opened and during the following days this led to the inundation of the Yzer-valley which stopped the march of the German army in Belgium. This was also the start of the famous trench war which lasted for 4 more years until 1918.

This complex was initially build around the end of the 19th century and most of the infrastructure has been renovated or rebuild during the last century. One section of the banks with a length of 35m had almost not been renovated and this for an unknown reason. During the years this stretch of the banks was repaired with some concrete but in 2012 the repairs didn’t suffice anymore and parts of the outer protection layer of the slope collapsed. More and more material of the slope started to fall in the water and it was clear that a new slope needed to be built.

The main challenge to rebuild the slope was the presence of a medium pressure gas pipeline under this part of the banks. When rebuilding a slope, typically a sheet pile is used at the toe of the slope which supports the construction. In this case the gas pipe line was right under the line of the sheet piles and this solution was thus not possible. A new approach was developed and instead of a sheet pile at the toe of the dike a smaller sheet pile wall was used at the top of the slope to form an anchor to hold the construction itself.

In May 2014 the construction of the slope began. Especially the environment was challenging. At low tide there was almost no water depth and some areas were completely dry. The Albert-1 monument, which lays just next to the slope, was being renovated at that time and there was almost no space left to work on top of the banks. During the excavation works caution was needed to prevent the collapse of the old slope and to prevent damage at the monument.

The timing was also very strict. The construction needed to be finished before October 2014 due to the events for the memorial of the end of WW I. The deadline was met with only a few weeks spare.

In the end the construction was realized with no significant problems and completely within budget.

Blue Hub Rupel: an innovative and sustainable tourism challenge

Le Hub Blue Rupel: un challenge innovatif et écologique

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RÉSUMÉ
Au milieu du *diamant Flamand*, entre des villes importantes, on trouve une région verte, la région du Rupel, qui s' est développeé dans et autour des puits d'argiles. Le long de la rive nord de la rivière Rupel une cuesta d'argile de 30m d' hauteur a été la cause depuis des centaines d'années de production des briques et des carreaus. Le paysage, l'eau et l'argile sont les trois USP's du Narrative Regional du Rupel et ils forment la base pour le développement des produits touristiques. L'aire de loisirs provincial De Schorre est entrain de développer sur une site historique au bord du Rupel un Hub Blue: une halte multimodale qui est innovatrice et écologique pour toutes sortes de transport par et au bord de la rivière. Le Hub Blue combinera des facilités touristiques comme location, réparation et point de charge pour vélos et voitures électriques, carsharing, transport nautique durable, information touristique numérique et un restaurant où la culture cycliste Flamand sera évoqué etc. L' utilisation de l' énergie renouvelable est un challenge très important pour les développeurs.

ABSTRACT
In the centre of the Flemish heart, in between important cities, lays a large green area, the Rupel region, developed in and around abandoned claypits. Along the northern bank of the river Rupel a massive clay-cuesta of 30m high led to hundreds of years of brick production. Landscape, water and clay are the three USP's of the Regional Narrative Rupel and the development of recreational and tourism products. The Provincial Recreational domain De Schorre develops at the moment at an historical site near the Rupel a Blue Hub: an innovative and sustainable multimodal hub for all kinds of transport over and along the river. The Blue Hub Rupel will combine logistic tourism services like bike renting and repairing, electric charging points for bikes and cars, car-sharing, sustainable water transport, digital tourism information and a restaurant with a visitor center where the Flemish bike culture will be evocated. The utilization of renewable energy is an important challenge for the developers.

KEYWORDS
Flemish bike culture, Multimodal hub, Regional Marketing, Renewable energy, Sustainable recreational transport

TOPICS TO BE ADDRESSED
waterways in cultural-touristic perspective

LIST OF REFERENCES
Policy agreement 2014-2019, Tourism by the Flemish Minister of Tourism Ben Weyts
Policy of the Provincial Government of Antwerp, Leisure department, Chief executive Bruno Peeters, 2013-2018
Different sources of entrepreneurs and institutes, especially Paul Cornelis, developer of the carbon neutral business centre "Scherpenhoek" in Boom

BLUE HUB RUPEL, AN INNOVATIVE AND SUSTAINABLE TOURISM CHALLENGE

Introduction

The last decennium a major conversion can be discovered in the way the region of Flanders looks to its waterways. After a long history of waterway transport everybody turned its back towards the rivers in the years 70 and 80 of last era. Due to a non-efficient water purification policy many rivers became 'dead rivers', open sewers, smelling, without any swimming fish. The last decennia a major change can be noticed. Waterways are again seen as the beating heart of a city, as a recreational attraction or as a luxurious place to live.

But, concerning the tourism opportunities for water recreation and tourism, Flanders still has a lot to catch up. Maybe not for the different individual initiatives but more specific for an integrated linked network of recreational-tourism products. It is therefore not amazing that this ambition makes out one of the thematic challenges in the Tourism policy 2014-2019 of Flanders Minister Ben Weyts.

The Rupel region was eager to pick up this challenge. The Province of Antwerp and the Provincial Recreational domain De Schorre both have the ambition the next years to build an innovative and sustainable blue hub along the river Rupel. A location where walker, biker, Nordic walker, mountain biker, water tourist, local habitant, business team etc. meet and change from transport mode in a sustainable environment and with the best use of renewable energy.

Why the Rupel Region?

The Rupel region is situated in the centre of the Heart of Flanders and forms a remarkable green area between major cities as Antwerp, Louvain, Brussels and Ghent.

During ages this region was well known for its brick production. The 30m high clay cuesta, deposited million years ago on the northern bank of the river, was systematically extracted since the Middle Ages for the production of bricks and tiles. These products were shipped to Antwerp, Mechelen, Brussels and further on to more inland destinations or to international ports, especially to England, Holland and the United States.

Brick production on such a high scale has left, literally, deep traces in the landscape, especially the clay winning pits. These pits and their surroundings are today transformed in a large, green area with lots of water. The Rupel region, with the Provincial Recreational domain De Schorre in the midst of it, is therefore now a very attractive region for tourists and locals.

Every year more than 350.000 bikers pass along the banks of the Rupel but they act mostly just as passers-by. It is the ambition of the province of Antwerp to make hundreds of these bikers take a stop to experience the Rupel region, to enjoy the green area and the rich industrial heritage still visible more inland along its borders.

Regional Narrative Rupel Region

The framework for the regional marketing of the Rupel region is the Regional Narrative. The 5 Rupel communities are linked to each other deeply since centuries through their common history: the geomorphology of the region (the clay cuesta), the river as canal for transport along the river or as a functional connection to the opposite bank, the daily life along a tidal river and the dangers of flooding, the 'WE'-feeling along the northern bank of the river, the brick history and the social life among the many labourers… All these elements are the base for the Regional Narrative Rupel which focusses on 3 cornerstones, the unique selling points (USP) of the region: clay, water and landscape.

This Regional Narrative, which is supported by all 5 local communities and different local organizations concerned with heritage, nature, recreation and tourism, has been made visible in the landscape through signage and information panels. With the support of European funding two visitor centers were developed: a renovated Watertower in Rumst as panoramic view point and educational center for the actual clay extraction, and the Nautical Visitor Centre where the importance of the river as transport mode and food supplier is evocated. At the moment the region is also working on a better cooperation structure for the 5 local clay, brick and tile museums to offer a more qualitative visit for the public.

Blue Hub Rupel

But the ambitions go further.
The Provincial Recreational domain De Schorre, developed in old clay pits and very well known as the homebase for the worldfestival Tomorrowland, bought an elongated piece of land to connect the clay pits again with the river. At this site, where important heritage relicts are still present f.e. parts of a brick kiln, a chimney and a brick surrounding wall, the next 3 years a regional tourism experience center will be developed that serves as well as an ecological transferium site for visitors and locals.
Visitors are not only welcomed here for logistic tourism services as: bike renting and repairing, renting and selling of walking and biking equipment, electric charging points for bikes and cars, car sharing, sustainable public transport, digital tourism information and route planners,… but it will also be the meeting point to change from transport mode: from public transport to biking, from water transport to walking, from electric car to Nordic walking, from water taxi to shopping in a nearby city….
A sustainable approach will be the baseline. The ambition is not only to erect a building that is as carbon neutral as possible but also to offer transport modes as sustainable as possible. The car won't be 'the king of the road' anymore but alternatives will be offered to let the tourist or local not only enjoy a nice day out but to extend his range of discovery of tourism destinations thanks to all the available transport possibilities.
Water tourism will be strongly integrated in the project. Close to the site the old pier of the Nautical Visitor Center will be renovated for short time stays and in the medium term will be elongated as a pier for longer stays for recreational navigation and river cruises. Also water taxi's will be in the scope to connect the surrounding cities with the green environment of the Rupel region.
To put the ambition and the challenge even more high, we look with different partners to extra European funding. The research questions are urgent and sometimes difficult.

- Which type of boat, which type of power to use for water taxis and functional transport?
- Which functionalities (tourism and functional) can be combined? How we can generate other win-win situations? Who are the other partners to profit from a better accessibility to the river? (f.e. fireman!)
- How we deal with a tidal river and a strong tide in relation to the type of sustainable power? How we can generate energy from a tidal river?
- Part of the project will also be a research to the readiness of the user. How far does a tourist wants to go to experiment with sustainable transport? What is the breaking point when a tourist wants to leave his comfort zone (= his car)? What will be the extra-value?

A good cooperation between governments, researchers and entrepreneurs will add a lot of value to the success of this project.

Facts & Figures

The province of Antwerp has set the first step by choosing the architect group who will develop the Blue Hub Rupel. The cooperation exists of an architect, an engineering office specialized in sustainable technics, a landscape architect and a museum designer to cover all the aspects that are an integral part of the realization of this sustainable tourism multimodal hub.
A network with entrepreneurs and innovative companies has been set up.
Besides that the Provincial Recreational domain De Schorre will achieve and manage a unique Flemish cycle heritage collection of a private owner which will become an integral part of the experience of the site.
The province of Antwerp will invest in this project 1.600.000 EUR but still hopes for extra funding from Flanders tourism and Europe.
The architectural design is in full development; execution is foreseen at the end of 2016 and in 2017. Finishing in 2018. The extension of the small pier to a longer recreational pier is foreseen in 2019.

Can the Lombard Inland Waterways attract tourism and economy? The attractiveness of the lombard inland waterways

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RÉSUMÉ

The aim is to illustrate the actual situation of the lombard inland waterways (lakes, rivers, canals) related to navigation in order to better understand the potentialities of the area and the new routes which could be developed. Moreover, the planning of a scenery of touristic actions and events with particular regard to the sites of revelant importance as a unifying element in the construction of a cultural and touristic inland network. Great importance is given to the attractiveness of the natural and touristic sources as they provide the people and visitors a strong stimulus through the emotional experience of the events played in the area.

ABSTRACT

Lombardy is the Italian Region with the most developed system of inland navigable waterways (more than 1000 chilometres, more than 200 touristic ports and 5 ports, 5 canals). Despite of this, it happens that we (quite often) forget to consider the whole system of the lombard inland waterways in its entirety and completeness so we miss its touristic and economic potentialities. On the other hand, this system, which is traditionally based on solid historic foundations, could play (among the most important actors of tourism), a very important role in the enhancement of the so-called “water civilization”. The whole system of the lombard inland waterways could contribute, in fact, to convey “attractiveness” (itineraries, cultural sites) and “added” values (events and memories).

Approach to the lombard inland waterways
Step 1: survey and interpretation of the system of the Lombard Inland Waterways**.**
Step 2: identification of the cultural and touristic assets (mentioned in Step 1) in order to fix a common platform in the networking perspective
Expected results
The enhancement of an intelligent and sustainable tourism based on navigation and "water heritage” as a connecting element and new economic opportunities.

KEYWORDS

The attractiveness of the Lombard Inland Waterways, canals, lakes, rivers of Lombardy as a unique system of navigation for culture and tourism.

TOPICS TO BE ADDRESSED

Waterways in cultural-touristic perspective

THE ATTRACTIVENESS OF THE LOMBARD INLAND WATERWAYS CANALS, LAKES AND RIVERS OF LOMBARDY: A RESOURCE FOR TOURISM

The role of the lombard inland waterways in the construction of a cultural and touristic network

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NAUTIV


IWI


ghent:
so much city


agentschap
Maritieme Dienstverlening
en Kust


Waterwegen en Zeekanaal NV
weg van water


Portus
Ganda


MEL
MÉTROPOLE
EUROPÉENNE DE LILLE


Fascinerend
Koksijde
Oostduinkerke
K


Gemeente
Terneuzen


PORT OF
GHENT


lekker
Oost-Vlaams


UNIVERSITEIT
GENT


GENTSE
BARGE


LINSSEN
YACHTS


LBH
Linssen
Boating Holidays


RiverYachts
vakantie boot charter


de Westhoek
PURE VERWONDERING


TOERISME
LEIESTREEK


MeetinGent
& oost - vlaanderen


Semico


Boat in Gent


GENT WATERTOERIST


BOOTTOCHTEN
DE GENTENAER
REDERIJ


De bootjes van Gent
Rederij Dewaele