

Few words to understand each others

FR	NL	SP	LT	IT	EN
Escaut	Schelde	Escalda	Šeldas	Schelda	The Scheldt
Sambre	Samber	Sambre	Sambre	Sambre	The Sambre
Canal	kanaal	canal	kanāls	Canale / idrovia	Canal
Mines	Mijnen	Minas	Mīnas	Miniere	Mines
Rail	spoorweg	ferrocarril	dzelzceļš	Ferrovía	Railway
Ecluse	slot	Bloquear	slēdzene	Chiusa	Lock
Tranchée	Loopgraaf	Zanja	tranšeja	trincea	Trench
Piste cyclable	Fietspad	Carril de bicicletas	veloceliņš	Pista ciclabile	Cycle path

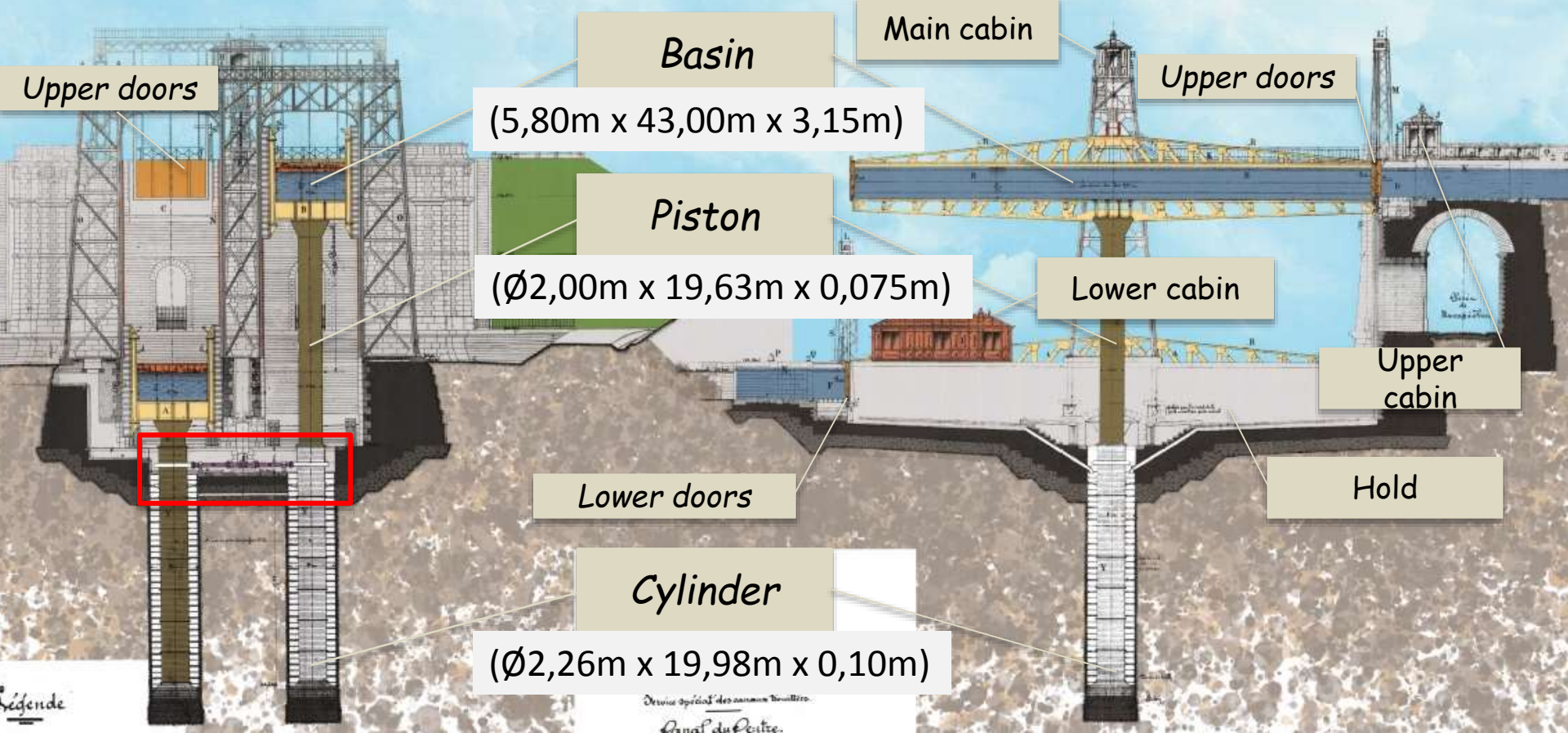
Few words to understand each others

FR	NL	SP	LT	IT	EN
Asc.hyd.	Hydraulisch lift	Ascensor hidráulico	hidraulisks lifts	Ascensore idraulico	Hydraulic Lift
Aval	ondersteuning	apoyo	atbalsts	A valle	Downhill
Amont	bergopwaarts	Cuesta arriba	kalnup	A monte	Uphill
F. délégué	Afgevaardigde	delegado	delegāts	delegato	Civil servant
Cale	houden	mantener	turēt	scantinato	hold
Inondation	overstroming	inundación	plūdi	inondazione	Flood



**Welcome to our guests
to the historical part of The « canal du
Centre »**

Dominique DENIS, civil engineer



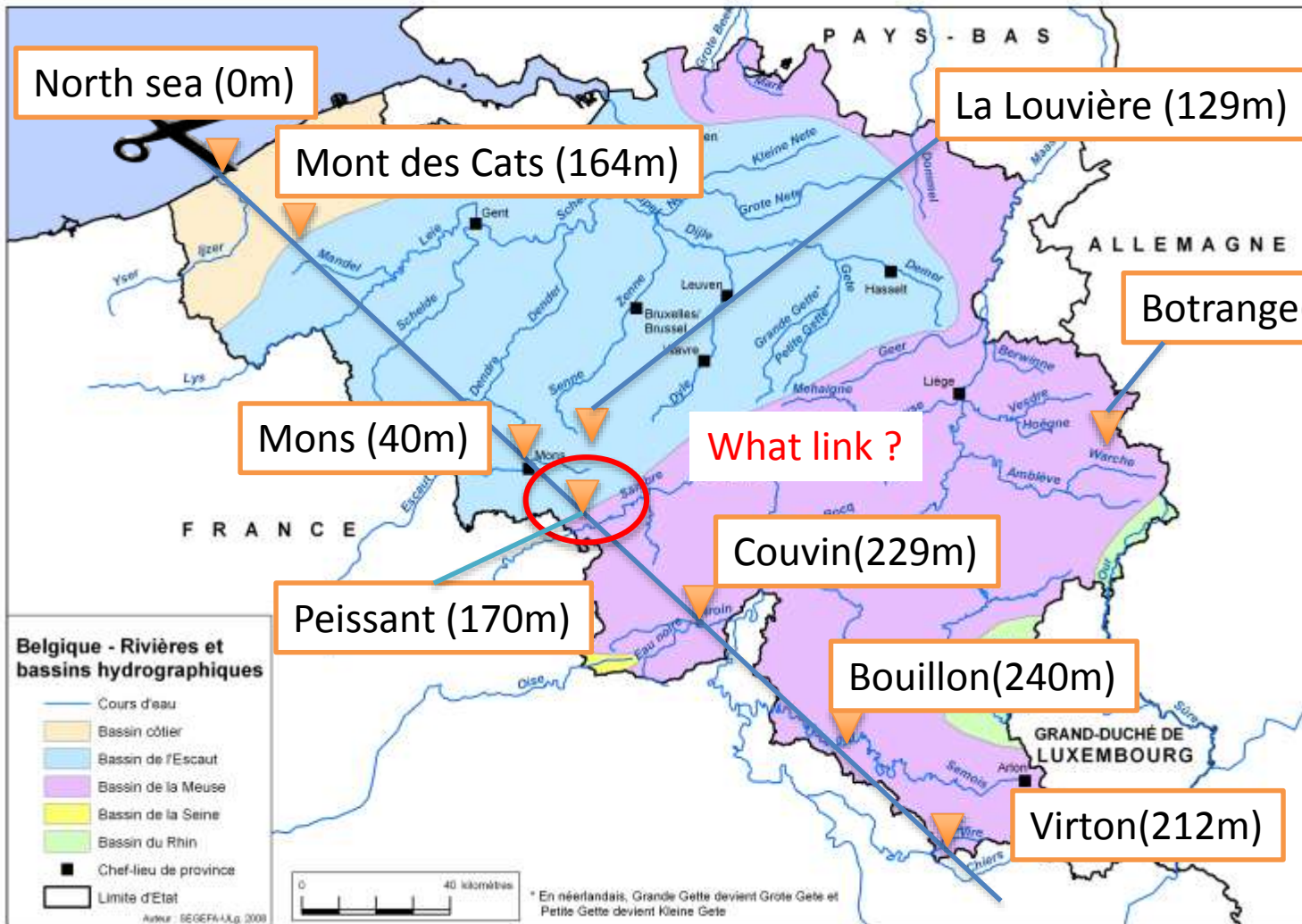
1 - Vocabulary

Service public de Wallonie **mobilité voies hydrauliques**

Part I.

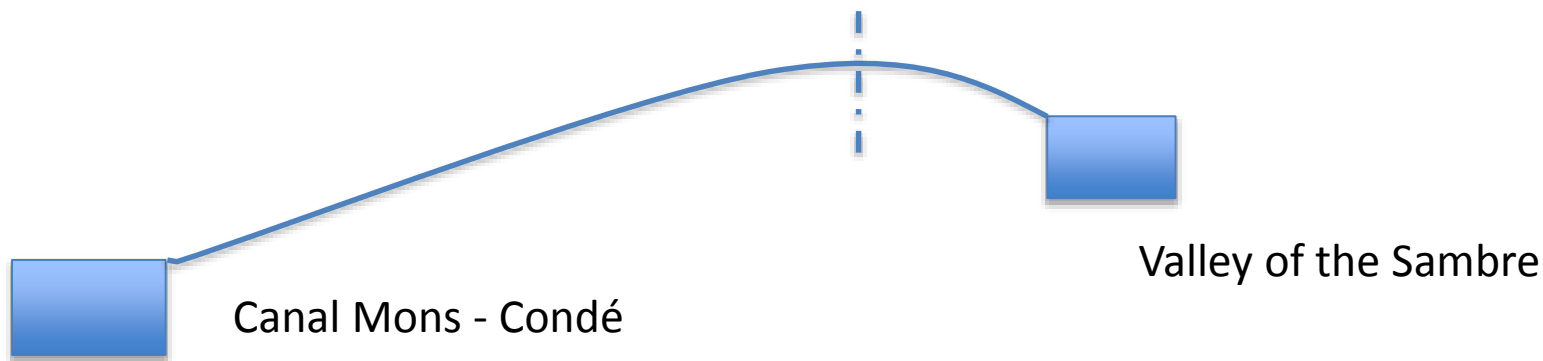
**Why do we find hydraulic lifts in
this part of Belgium ?**

**A short story about a Century of
Waterworks in Belgium**



11 projects developed to solve the problem of the 2 descents between 1811 and 1879.

- From the peak to the Sambre : descent of 24 metres
- From the peak to Mons : descent of 91.74 metres

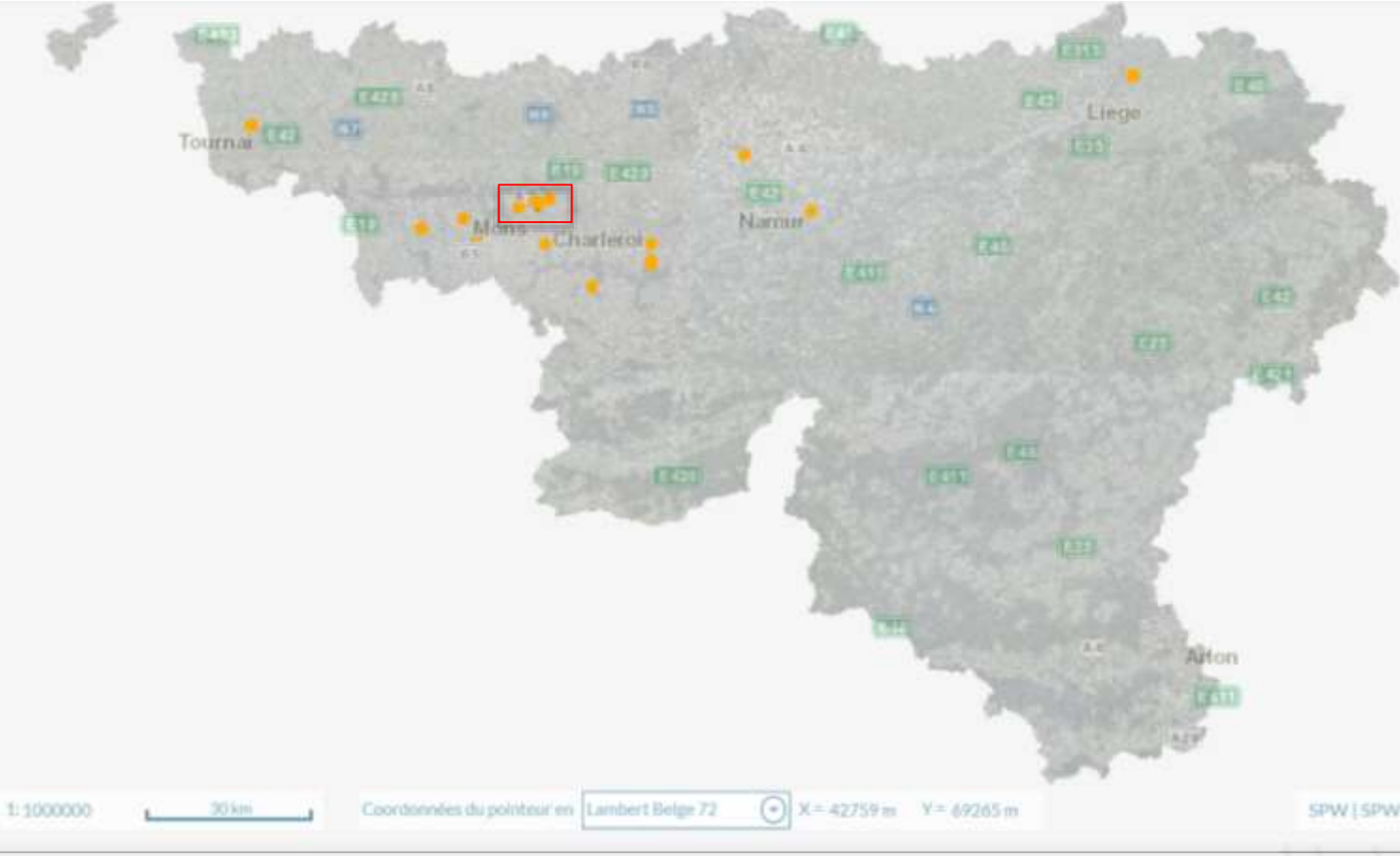




Part II . Management

Heritage Costs of this historical canal

- In 1994, the government of Belgium signed a decree for the protection of the **lifts' site** and of the surrounding **area**.
 - « each on-site project must be analysed and approved by a committee before asking for agreement from the local council »
 - « Each project in the « surrounding » area must be approved by the « delegated civil servant » before beginning the works.
 - ! New regulations are expected (see AWaP) on **June 1st**.



- World Heritage
- Exceptional
- Listed

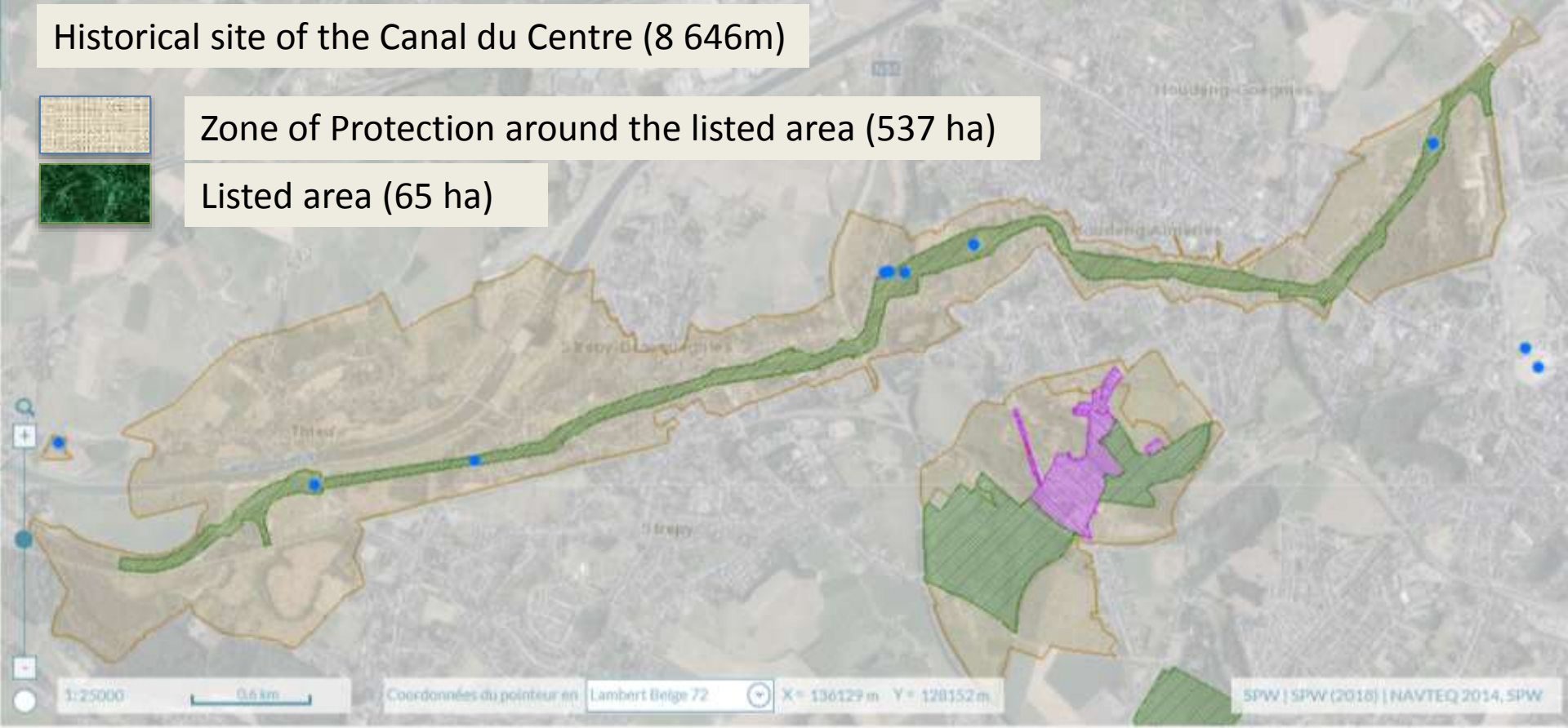
Historical site of the Canal du Centre (8 646m)



Zone of Protection around the listed area (537 ha)



Listed area (65 ha)





Management Costs

Daily problems : Yearly maintenance contracts

07/06/2019

14

- for green maintenance,
- for banks, for roads , docks and greenways,
- for floating and underwater waste (lentils, seaweed, ...)
- to collect waste (boats, SpW,public rubbish dumping, etc.)
- Extra supplies for the maintenance,
- Steel & bronze,
- oil, grease, lubricants,
- sealings,

160 627,50€

105 209.50€

254 983.30€

49 731.00€

60 000.00€

23 685.81€

27 032.67€

71 164.81€

752 434,59

Service public de Wallonie



Exceptional works (a.a.l. 25 years)

- Dredging
- Bridges (Swg & Draw)
- Road Bridges
- Pipes
- Buildings
- Wells
- Engines
- Aqueduct
- Lift
- Structures

1 581 803,82€

313 606,90€

14 445 410,06€

1 871 7

3 783 525,86€

391 724

10 129 413,37€

- Légende**
- A Day de droite.
 - B Day de gauche.
 - C Réseaux métalliques d'amenal (des droits)
 - G Réseaux au centre pour l'amenal et le centre des communications spéciales.
 - H Centre des communications spéciales.
 - K Réseaux pour l'amenal et le centre des communications spéciales.
 - L et M Réseaux de communication de service des lignes et actionnant les portes d'amenal.
 - N Réseaux métalliques d'amenal.
 - O et P Réseaux de communication.

Ministère de l'Agriculture
et des Travaux Publics

Ascenseur Hydraulique N° 14
à Gbién

Coupe transversale par l'axe des puits

Légende

- A Day de droite.
- B Day de gauche.
- C Réseaux métalliques d'amenal (des droits)
- D et E Réseaux de communication.
- F et G Réseaux de communication.
- H et I Réseaux de communication.
- J et K Réseaux de communication.
- L et M Réseaux de communication.
- N et O Réseaux de communication.
- P et Q Réseaux de communication.

After a Century of use - big bills

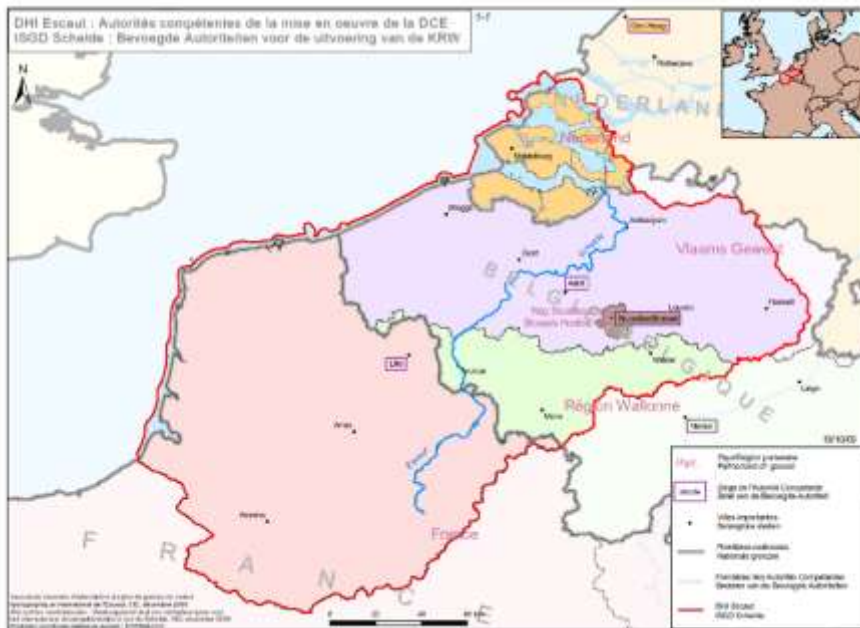
- 36 498 659,15 € for 16 years of investment to maintain navigational capacity... divided by 100 years of intensive use...
- That costs 364 986,59€ a year
- i.e. about 42,21 € / m ...

Total Average cost

- **per year : 1 117 421,18€**
- **per year, per metre : 129,24 €.**

Part III . International links

Geographical International Situation – The Escaut



Monitoring of the Escaut, 3 countries :
France, the Netherlands and Belgium.

Flood risks : isc-cie.org

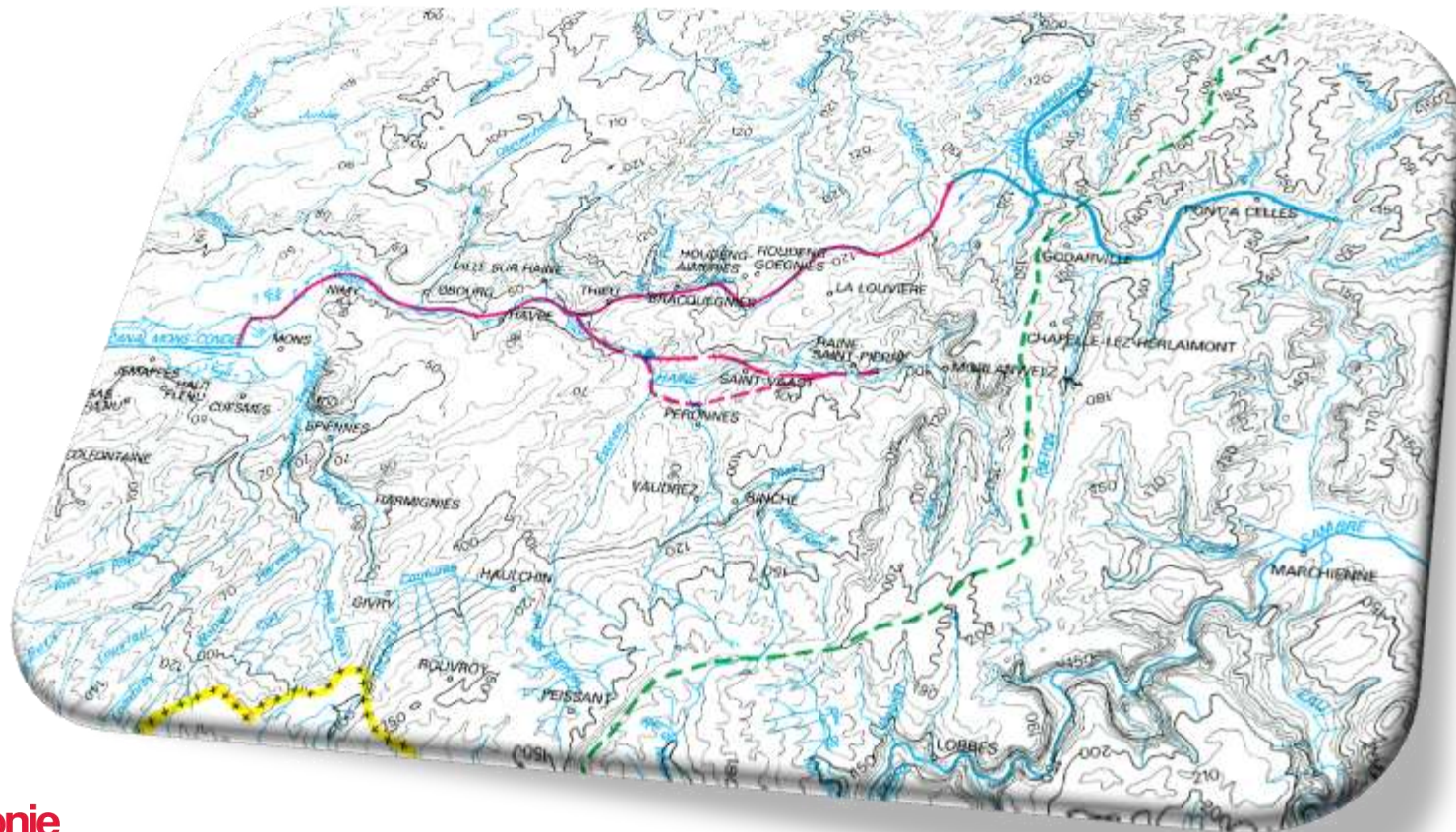




AntiFlood bike proposal

Thank you for your attention

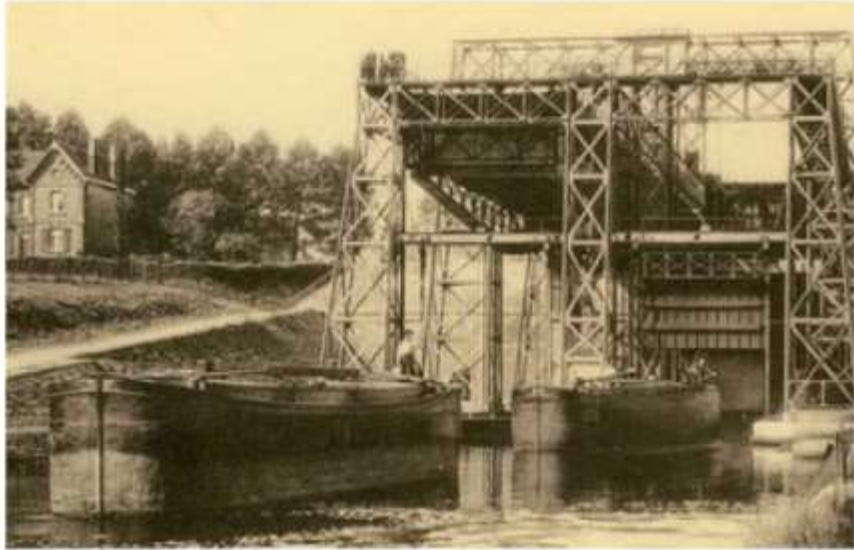
Any questions ?



E-Links

- Channel of Center « historical canal »
- Channel Charleroi-Bruxelles :
- <http://www.canaletpaysages.be/le-canal-historique/>
- RAVeL on historical channel :
- <https://ravel.wallonie.be/home/itineraires/local/boucle-du-canal-du-centre-et-du-canal-du-centre-historique.html>
- AWaP : https://agencewallonnedupatrimoine.be/wp-content/uploads/2019/02/spw_away_code_wallon_patrimoine_2019.pdf

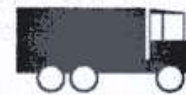
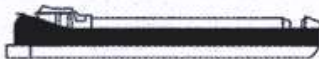
Baquet (70 tons) vs Freycinet (300 tons)



Comparisons

07/06/2019
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Péniches de type «Freycinet» : 350 t - 38,50 m x 5,05 m



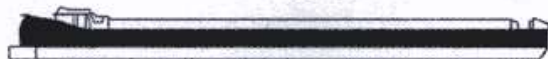
x 14

Bateau de type «Canal du Nord» : 970 t - 70 m x 5,70 m



x 39

Chaland de Seine : 1 300 t - 60 m x 6,60 m



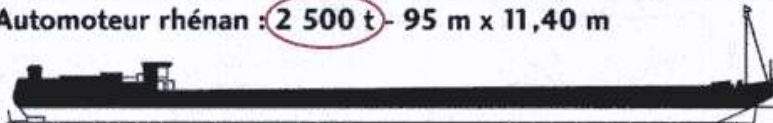
x 52

Automoteur de type «Rhein - Herne Kanal» : 1 350 t - 80 m x 9,50 m



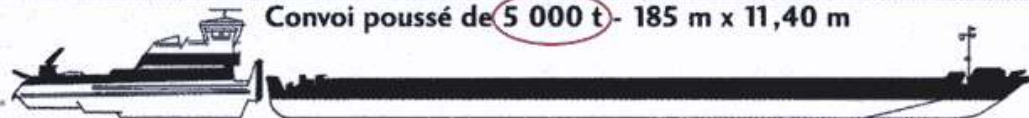
x 54

Automoteur rhénan : 2 500 t - 95 m x 11,40 m

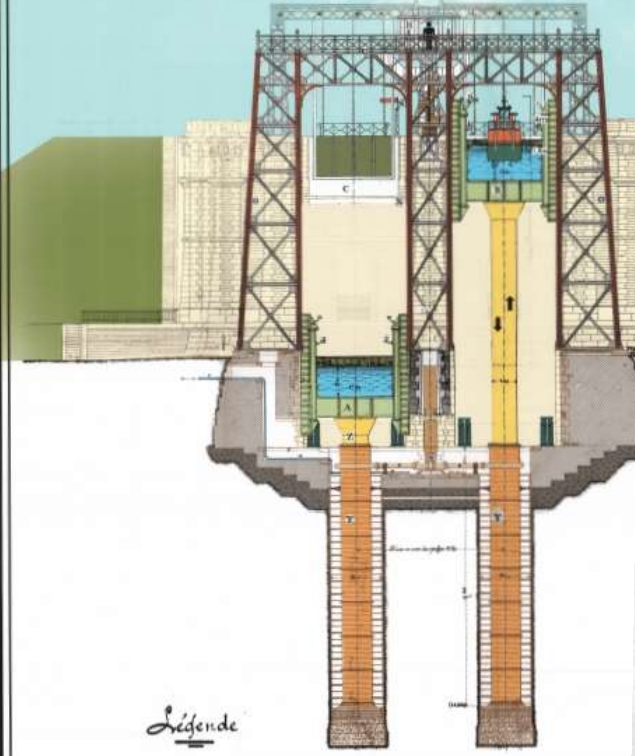


x 100

Convoi poussé de 5 000 t - 185 m x 11,40 m



x 250



Légende

