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Table of Content

1	Intro	oduction		6					
2	The	existing ic	dentity legitimization processes	6					
	2.1	Regulative Requirements w.r.t KYC							
	2.2	Account	Issuing Possibilities	8					
		2.2.1	Third Party Banks	8					
		2.2.2	PayCenter GmbH	8					
	2.3	Strategic	outcome	8					
3	Legi	egitimization Requirements using PayCenter							
	3.1	Requirements for Full KYC							
	3.2	Possible	Cross-Country implementation options	9					
	3.3	Strategic	Focus	10					
4	Foci	us Countri	es	11					
	4.1	Regulativ	ve Outlook	11					
		4.1.1	Austria	11					
		4.1.2	Belgium	12					
		4.1.3	The Netherlands	12					
		4.1.4	Luxembourg	13					
	4.2	Demogra	phic Outlook	14					
		4.2.1	Austria	14					
		4.2.2	Belgium	14					
		4.2.3	The Netherlands	15					
		4.2.4	Luxembourg	16					
	4.3	Technica	l Outlook	17					
		4.3.1	Austria	17					
		4.3.2	Belgium	18					
		4.3.3	The Netherlands	18					
		4.3.4	Luxembourg	18					
5	Con	nparative I	Market Analysis	19					
	5.1	5.1 Austria 1							
	5.2	.2 Belgium							
	5.3	.3 The Netherlands							
	5.4	Luxembo	ourg	22					
6	Conclusion								



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Executive Summary

This document constitutes deliverable *D 8.1 – Report on European Focus Countries* of Work Package 8 (WP8) of the VIMpay project.

The deliverable outlines the existing regulative, demographic and technical processes in each focus country and spotlights the adaptability efforts that will be required in the initial VIMpay push. It highlights the KYC requirements in each country and AML frameworks and how they might impact the introduction and adoption of VIMpay.

The flexible approach employed will assist in the introduction of VIMpay in Austria. The results of the entry into the Austrian market will be exploited for further entry into the Benelux countries and later the whole of Europe.



1 Introduction

The majority of market entry efforts will focus on aligning VIMpay with the existing technical and regulatory frameworks that exist in Austria and the Benelux countries.

Any technical and regulatory discrepancies may warrant ongoing adjustments to market entry efforts in preparation to further exploit project results.

2 The existing identity legitimization processes

As referenced under the VIMpay KYC Decision Matrix in deliverable *D 4.1 – Decision Matrix and Process Definitions* of Work Package 4 (WP4) of the VIMpay project, there are three KYC models that form the overall VIMpay KYC structure and ongoing customer due diligence processes. Only two of the KYC models will be supported as illustrated below.

VIMpay Decis							
Basic VIMpay	KYC Structure						
VIMpay Version	Preset KYC Model	Instant top-up limit	Maximum Account Balance	Revenue Limit per year	KYC Requirements	VIMpay Functionalities	Additional Requirements
NOT CURRENTLY SUPPORTED	NO KYC Anonymous	15€	100€	100€	None	"Gift card" with limited use only	
						Reloading the card for the second time	Basic Small KYC
Standard	Small KYC	15€	300€	2,500€	1. Reference bank account 2. Mobile phone number verification via TAN 3. Automatic address check	1. Mobile phone recharge 2. Account recharge via Instant Replenishment 3. ATM Cash withdrawals 4. Internet purchases 5. POS purchases	
						6. Plastic VIMpay card and ATM withdrawals	Basic Small KYC + Address verification / Proof of address in the form of a residence registration certificate before the plastic card is sent



Plus Upgrade	Small KYC	150€	2,500€	2,500€	1. Reference bank account	1. Mobile phone recharge	
					(NOT required if upgrading from VIMpay standard and a Small KYC check is already accomplished) 2. Mobile phone number verification via TAN 3. Automatic address check	2. Account recharge via instant replenishment 3. Account recharge via a bank transfer 4. ATM Cash withdrawals 5. Internet purchases 6. POS purchases 7. Plastic VIMpay card and ATM Cash withdrawals	Basic Small KYC + Address verification/Pro of of address in the form of a residence registration certificate before the plastic card is
Premium Upgrade	Full KYC	Unlimite d	10,000€	Unlimite d	1. PostIdent / VideoIdent	Plastic VIMpay card and ATM Cash withdrawals	sent
					2. Mobile phone number verification via TAN	2. Internet purchases 3. POS purchases 4. Mobile phone recharge 5. P2P payments (among VIMpay users) 6. Bank transfers (SEPA) 7. Bank account functionalities 8. BankingBro 9. Recharge via Instant replenishment 10. Recharge via a normal bank account 11. Increasing the maximum account balance above the 10.000 € limit	Basic Full KYC + A telephone call to the VIMpay customer service number to review the customer account



2.1 Regulative Requirements w.r.t KYC

With regards to KYC, the bank that eventually issues the VIMpay account and VIMpay Card will also have to be responsible for the account holder identity legitimization.

In effect, the KYC check regulation and mandate will have to be observed by that particular bank per local regulations.

2.2 Account Issuing Possibilities

petaFuel uses a licensed bank to provide account functionality and / or cards. In Germany this is realized by the existing partnership with PayCenter. For the VIMpay Premium version, the issuing of an account with bank functionalities will require a path with the least or minimal regulatory impediments to allow easy adoption into the EU, starting with the focus countries.

Issuing of the VIMpay accounts (and cards) in the EU could be accomplished by leveraging the already established PayCenter capabilities or by enlisting a third party bank in each of the focus countries and the EU in general.

2.2.1 Third Party Banks

The issuing of the VIMpay Card in the focus countries could be handled by a third party bank. As mentioned in section 2.1, involvement of third party banks will require additional adjustments to the VIMpay strategy for entry into the EU. The third party banks might have different KYC/AML screening procedures. Additionally, the potential technological differences will provide added impediments for effectively issuing VIMpay accounts in the EU.

2.2.2 PayCenter GmbH

PayCenter was the first German eMoney Institute with its own German bank code to be approved and licensed by the Federal Financial Supervisory Authority (BaFin). It is a licensed and preferred MasterCard issuer and regulated by the German Federal Financial Supervisory Authority (BaFin), based in Bonn, Germany. It focuses primarily on the prepaid card business, especially prepaid MasterCards. In its current cooperation with petaFuel, PayCenter has continued to evolve and expand its business portfolio through expanded customer acquisition programs and new partnerships. PayCenter is currently a holder of two (2) unlimited licenses which can be used in the whole of the EU:

- 1. E-Money License issued by the Federal Financial Supervisory Authority (BaFin)
- 2. Prepaid MasterCard Issuing License upgraded to a SEPA-wide license in 2014

2.3 Strategic outcome

The most effective VIMpay account issuing option for the EU is using PayCenter as the issuer because of the established licensing availability. As illustrated in the diagram above, the issuing process will need to be streamlined.



Because the capabilities of PayCenter are well established, integrating the process will be seamless. Therefore the issuing of VIMpay accounts will be facilitated by PayCenter in order to hasten a successful entry into the EU market with no regulatory impediments.

3 Legitimization Requirements using PayCenter

3.1 Requirements for Full KYC

Under the Banking Act (Gesetz über das Kreditwesen - KWG), the Federal Financial Supervisory Authority (BaFIN) monitors the guidelines to be considered when legitimizing a user during account opening.

In order to establish the identity of a VIMpay account holder, the following information has to be collected; name, place of birth, date of birth, nationality and address as instructed under the Money Laundering Act (Geldwäschegesetz – GwG) Part 2 (Due diligence requirements and internal controls and safeguards) section § 4 paragraph 3, part 1 (Identification)

If PayCenter is selected as an option, the following VIMpay user details will be collected in order to consider a VIMpay user fully legitimized as monitored by BaFIN.

Identification details of the Person (as shown on the passport)
Name
Street Address
Document Number
Date of birth
Place of birth
State affiliation
Issuing authority
Nationality

3.2 Possible Cross-Country implementation options

In order to fully legitimize VIMpay users, an implementation option that presents minimal cross-country challenges will have to be used. Implementation refers to the actual process / technical path of collecting the required identification details of the person wishing to open an account as instructed in the Monet Laundering Act (Geldwäschegesetz – GwG) to fully legitimize a VIMpay user.

The following are two possible cross-country implementation paths available that could be used in the focus countries when PayCenter is the account issuing option:

A. Trusted Third Parties

Trusted third party are companies or organizations that could facilitate the implementation of the KYC check for all VIMpay users. Third party KYC implementation can be achieved through online video identity check or through a physical identification check.



i) Physical identity check

The physical inspection of the identification documents will have to be conducted by a trusted third party who will ensure that the legitimization requirements listed above are fully met. The current trusted third party in Germany is Deutsche Post.

ii) Online identity check via video

The VIMpay video identification process will be conducted by a trusted third party. This will results in the provision of the legitimization requirements which are essential for the Full KYC check of VIMpay EU users. The data collected will be in line with the legitimization requirements as listed in the table above. Some of the companies that could facilitate video legitimization are:

- a) Arvato (https://www.arvato.com/de/services/videoident.html)
- b) IDNow (https://www.idnow.de/)
- c) Webid-solutions (https://www.webid-solutions.de/)

B. PayCenter branches in each focus country

Implementation of the KYC check could also be accomplished through the use of PayCenter branches in each of the focus countries. In this case, the VIMpay users would have to visit the PayCenter branches and present their physical identification documentation. Additional resources will have to be allocated towards establishing the PayCenter branches.

3.3 Strategic Focus

For the implementation of the KYC Check in the EU, we will focus on utilizing the trusted third parties option. Trusted third parties represent the best option for successfully introducing VIMpay to the wider EU because:

- 1. They are already established in the EU market and they are cost effective
- 2. Integration can be accomplished with minimal adjustments to VIMpay without adversely affecting the project timeline.

The best KYC check implementation method / technical path for VIMpay is the online identity check via VideoIdent. This will be facilitated by a trusted third party that allows easy integration with VIMpay.



4 Focus Countries

4.1 Regulative Outlook

Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) requirements such as identity verification, transaction monitoring and verification in the focus countries fall under the purvey of the AML/CTF regulation and supervision of E-Money issuers such as PayCenter GmbH is governed by European legislation, in particular the Second E-Money Directive (2nd EMD) and the Third Anti-Money Laundering Directive (3rd MLD).

There are currently no regulatory issues with regards to the existing licensing framework for issuing VIMpay cards as indicated in section 2.2.2.

4.1.1 Austria

VIMpay is regulated by BaFin. With the strategic focus on the Full VIMpay KYC implemented through VideoIdent, we are anticipating very little regulatory challenges in Austria. VideoIdent capabilities offered through a trusted third party (as described in section 3.2)will be integrated in order to provide the required legitimization requirements.

Implementation	Full KYC Requirements	Identity Documentation	Description
Videoldent	(As shown on the passport) 1. Name 2. Last Name 3. Street Address 4. Location	Passport	A valid Austrian or EU passport
	5. License Number6. Date of birth7. Place of birth8. State affiliation9. Issuing authority10. Nationality		



4.1.2 Belgium

With the strategic focus on the Full VIMpay KYC implemented through VideoIdent, we are anticipating very little regulatory challenges in Belgium. VideoIdent capabilities offered through a trusted third party (as described in section 3.2) will be integrated in order to provide the required legitimization requirements.

Implementation	Full KYC Requirements	Identity Documentation	Description
Videoldent	(As shown on the passport)	Passport	A valid Belgian or EU
	1. Name		passport
	2. Last Name		
	3. Street Address		
	4. Location		
	5. License Number		
	6. Date of birth		
	7. Place of birth		
	8. State affiliation		
	9. Issuing authority		
	10. Nationality		

4.1.3 The Netherlands

With the strategic focus on the Full VIMpay KYC implemented through VideoIdent, we are anticipating very little regulatory challenges the Netherlands. VideoIdent capabilities offered through a trusted third party (as described in section 3.2) will be integrated in order to provide the required legitimization requirements.

Implementation	Full KYC Requirements	Identity	Description
		Documentation	
Videoldent	(As shown on the passport)	Passport	A valid Dutch or EU passport
	1. Name		
	2. Last Name		
	3. Street Address		
	4. Location		
	5. License Number		
	6. Date of birth		
	7. Place of birth		
	8. State affiliation		
	9. Issuing authority		
	10. Nationality		



4.1.4 Luxembourg

With the strategic focus on the Full VIMpay KYC implemented through VideoIdent, we are anticipating very little regulatory challenges in Luxembourg. VideoIdent capabilities offered through a trusted third party (as described in section 3.2) will be integrated in order to provide the required legitimization requirements.

Implementation	Full KYC Requirements	Identity Documentation	Description
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(4.)		
Videoldent	(As shown on the passport)	Passport	A valid Luxembourg or EU
	1. Name		passport
	2. Last Name		
	3. Street Address		
	4. Location		
	5. License Number		
	6. Date of birth		
	7. Place of birth		
	8. State affiliation		
	9. Issuing authority		
	10. Nationality		



4.2 Demographic Outlook

4.2.1 Austria

As of 2014, Austria had a total population of 8.22 million and an active mobile subscription of about 13.59 million.

Due to the shared language and other cultural similarities to Germany, very little adjustment will be required for the initial testing phase.

The demographic structure of Austria and mobile/smartphone banking statistics allow VIMpay to maintain the market segment targets selected and factored into the business plan for Austria.

Austria: Smartphone Usa	Austria: Smartphone Usage					
Smartphone penetration as a percentage of the total population	Smartphone users searching for local information via their phone	Smartphone users researching products via their phone	Smartphone users who have made a purchase via their phone			
48%	90%	80%	30%			

Austria: Mobile Statistics						
Number of active mobile broadband subscriptions	Mobile broadband subscriptions as a percentage of the total population	Active social media users accessing social media on a mobile device	Penetration of mobile social as a percentage of the total population			
4.6M	56%	2.6M	32%			

Austria: Mobile subscription contract type						
Percentage of total mobile subscriptions that are pre-paid	Percentage of total mobile subscriptions that are post-paid	Percentage of mobile subscriptions that are 3G connections				
27%	73%	64%				

4.2.2 Belgium

As of 2014, Belgium had a total population of 10.22 million and an active mobile subscription of about 12.88 million.

The demographic structure of Belgium and mobile/smartphone banking statistics allow VIMpay to maintain the market segment targets selected and factored into the business plan for Belgium.

Belgium: Smartphone Us	age		
Smartphone penetration as a percentage of the total population	Smartphone users searching for local information via their phone	Smartphone users researching products via their phone	Smartphone users who have made a purchase via their phone
34%	84%	66%	16%



Belgium: Mobile Statis	stics		
Number of active mobile broadband subscriptions	Mobile broadband subscriptions as a percentage of the total population	Active social media users accessing social media on a mobile device	Penetration of mobile social as a percentage of the total population
3.5M	34%	3.8M	36%

Belgium: Mobile subscription contract type					
Percentage of total mobile subscriptions that are pre-paid	Percentage of total mobile subscriptions that are post-paid	Percentage of mobile subscriptions that are 3G connections			
49%	51%	33%			

4.2.3 The Netherlands

As of 2014, the Netherlands had a total population of 16.81 million and an active mobile subscription of about 19.64 million.

The demographic structure of The Netherlands and mobile/smartphone banking statistics allow VIMpay to maintain the market segment targets selected and factored into the business plan for The Netherlands.

The Netherlands: Smartp	hone Usage		
Smartphone penetration as a percentage of the total population	Smartphone users searching for local information via their phone	Smartphone users researching products via their phone	Smartphone users who have made a purchase via their phone
52%	81%	74%	18%

The Netherlands: Mobile	Statistics		
Number of active mobile broadband subscriptions	Mobile broadband subscriptions as a percentage of the total population	Active social media users accessing social media on a mobile device	Penetration of mobile social as a percentage of the total population
10.2M	61%	7.4M	44%

The Netherlands: Mobile subscrip	tion contract type	
Percentage of total mobile subscriptions that are pre-paid	Percentage of total mobile subscriptions that are post-paid	Percentage of mobile subscriptions that are 3G connections
38%	62%	52%



4.2.4 Luxembourg

As of 2014, Luxembourg had a total population of 0.51 million and an active mobile subscription of about 0.76 million.

The demographic structure of Luxembourg and mobile/smartphone banking statistics allow VIMpay to maintain the market segment targets selected and factored into the business plan for Luxembourg.

Luxembourg: Smartphon	e Usage		
Smartphone penetration as a percentage of the total population	Smartphone users searching for local information via their phone	Smartphone users researching products via their phone	Smartphone users who have made a purchase via their phone
48%	90%	80%	30%

Luxembourg: Mobile Stat	tistics		
Number of active mobile broadband subscriptions	Mobile broadband subscriptions as a percentage of the total population	Active social media users accessing social media on a mobile device	Penetration of mobile social as a percentage of the total population
0.37M	72%	0.2M	39%

Luxembourg: Mobile subscription	contract type	
Percentage of total mobile subscriptions that are pre-paid	Percentage of total mobile subscriptions that are post-paid	Percentage of mobile subscriptions that are 3G connections
41%	59%	64%



4.3 Technical Outlook

petaFuel already has a proven and well-established card-based payment infrastructure that gives VIMpay a firm foothold in card payments. The card payment authorization platform and the SEPA payment module is integrated into a central payment processing platform which centrally handles all transactions on a customer account and can be easily extended to integrate other payment interfaces as well. Additionally, the existing payment infrastructure is fully compliant with all SEPA payment schemes. Therefore, there are no technical challenges with regards to card and SEPA payments.

The most vital functionality that could present technical challenges for the adoption and integration of VIMpay in the EU is multi-banking. VIMpay will allow its users to make multi-bank payments and to receive payments from multiple banks. In general VIMpay does support three different options to realize its multi-bank capability. In order to facilitate VIMpay multi-banking in the focus countries, the appropriate adjustment for each country will be made to accommodate the existing protocol.

1. Home banking protocols such as HBCI/FinTS

As an example HBCI/FinTS or Home Banking Computer Interface/ Financial Transaction Services is the safe and unified protocol used by German banks. FinTS (Financial Transaction Services) is a modern and secure transmission method for online payments, and the successor of the HBCI. HBCI allows bank customers to perform home banking transactions through a standardized interface between customers and the bank server software. A few alternatives to the HBCI/FinTS are in use in the EU.

2. Banking Application Programming Interfaces (APIs)

Some banks directly provide interfaces to connect with their internal systems. petaFuel can leverage these interfaces to facilitate multi-banking for the VIMpay users. In contrast to standardized protocols APIs are often bank-specific and must be implemented individually per bank system.

3. Screenscraping

Screen scraping is the process of collecting screen display data from one application and translating it so that another application can display it. This is normally done to capture data from a bank application/web interface in order to display it using a third party application.

4.3.1 Austria

As an alternative to the HBCI/FinTS protocol in Germany, the Multi Bank Standard (MBS¹) in Austria will allow VIMpay to interface to external systems and multi-user capability allowing

¹ MBS – Multi Bank Standard http://www.stuzza.at/de/mbs-multibank-standard.html



VIMpay to have multi-bank capabilities. A derivative of the following basic packages can/will be developed to facilitate this capability to connect to:

BusinessLine

Bank Austria

ELBA MBS

[RACON] Raiffeisen, BAWAG-P.S.K. Gruppe, Hypos in Oberösterreich, Salzburg und der Steiermark, VKB-Bank, BKS, BTV, Oberbank, Schelhammer & Schattera, Capital Bank, ZVEZA BANK, Hypo-Bank Burgenland

Telebanking MBS

Erste Bank, Sparkassen, Hypos in Vorarlberg, Tirol und Niederösterreich, Schoellerbank Aktiengesellschaft, Bankhaus Carl Spängler & Co. AG, Commerzialbank Mattersburg im Burgenland AG, Bankhaus Krentschker u. CO Aktiengesellschaft, Immorent Bank GmbH

HBP Home&Office Banking Plattform

Volksbank-Gruppe, Apothekerbank, Bank für Ärzte und freie Berufe, Gärtnerbank, IMMO Bank AG, Hypos in Vorarlberg, Tirol und Niederösterreich, Schoellerbank, Spaenglerbank, Sparda-Bank Austria Nord, Austrian Anadi Bank AG

4.3.2 Belgium

In Belgium, the ISABEL² banking API (Application Programming Interface) can provide VIMpay with the multi-bank capability. ISABEL is the multi-bank electronic platform provider offering Belgian banks a single and secure interface, called IsaGate, to conduct business with their banks. All major banks in Belgium are integrated to the ISABEL platform. The ISABEL framework functions independently of SWIFT.

4.3.3 The Netherlands

Any limitations to VIMpay multi-banking capabilities in the Netherlands will be addressed using Screenscraping. Screenscraping as an option will allow VIMpay to have access to the legacy Dutch banks application programs thereby allowing VIMpay users to have a multi-banking functionality.

4.3.4 Luxembourg

Any limitations to VIMpay multi-banking capabilities in Luxembourg will be addressed using screenscraping. Screenscraping as an option will allow VIMpay to have access to the legacy Luxembourg banks application programs thereby allowing VIMpay users to have a multi-banking functionality.

² ISABEL Multi-banking Functionality: https://www.isabel.eu/en/forbusiness/solutions/isabel6/functionalities.html



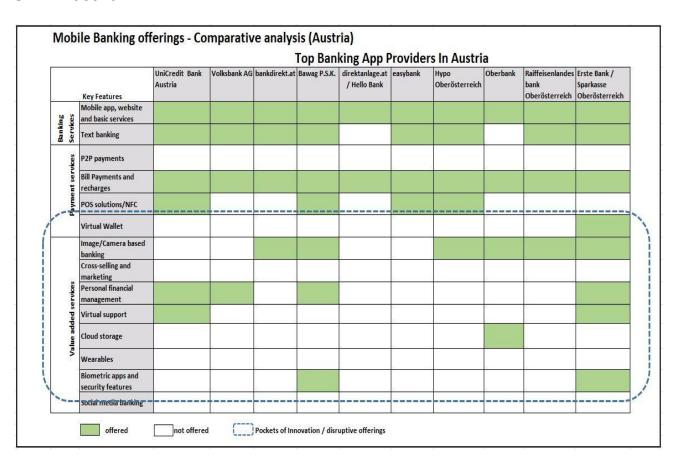
5 Comparative Market Analysis

The VIMpay EU focus countries feature Mobile Banking App providers who fall into three categories:

- 1 Incremental (cautious and conservative)
- 2 Transformational (High levels of investment with pockets of genuine innovation)
- 3 Pioneering (repeated first-of-a-kind services, primacy of mobile channel with overall customer experience)

These providers also offer payment services and value added services as illustrated in the analyses below.

5.1 Austria





5.2 Belgium

	Key Features	BNP Paribas Fortis	Keytrade	КВС	Belfius	AXA	ING
ing	Mobile app, website and basic services						
Banking Services	Text banking						
ices	P2P payments						
ayment services	Bill Payments and recharges						
Paymo	POS solutions/NFC						
	Virtual Wallet						
	Image/Camera based banking			3			
	Cross-selling and marketing						
Value added services	Personal financial management						
deds	Virtual support						
alue ad	Cloud storage						
>	Wearables						
	Biometric apps and security features						
	Social media banking						

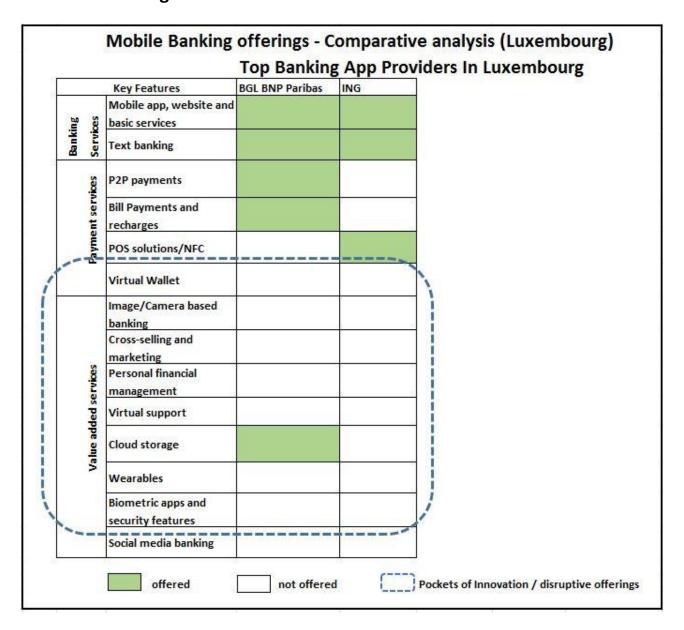


5.3 The Netherlands

	Key Features	ING Bank	anking Ap	Postbank	ABN-AMRO	Fortis Bank	SNS Bank
ng Ses	Mobile app, website and basic services						
Banking Services	Text banking						
vices	P2P payments						
ayment services	Bill Payments and recharges	*					
Payme	POS solutions/NFC						
	Virtual Wallet						
	Image/Camera based banking						
	Cross-selling and marketing			3 %			8
Value added services	Personal financial management						10
ded s	Virtual support						
lue ad	Cloud storage						
>	Wearables						
	Biometric apps and security features						
	Social media banking						



5.4 Luxembourg





6 Conclusion

The market conditions in the four EU focus countries suit the exploitation of the VIMpay results. Firstly, the demographics in the focus countries are in line with selected demographics in Germany. With the existing payment processing platform, SEPA and mobile payments will not be an issue for VIMpay in the EU.

The implementation of the KYC check as mandated by the Money Laundering Act account holder identification guidelines will easily be accomplished by working with existing EU market participants.

The technical outlook in the focus countries presents VIMpay with a few options that require adjustments. In order to fully offer a VIMpay with multi-bank capabilities, the best and effective options to overcome the challenge will be selected in order to keep to the project timelines while still delivering a competitive VIMpay application.