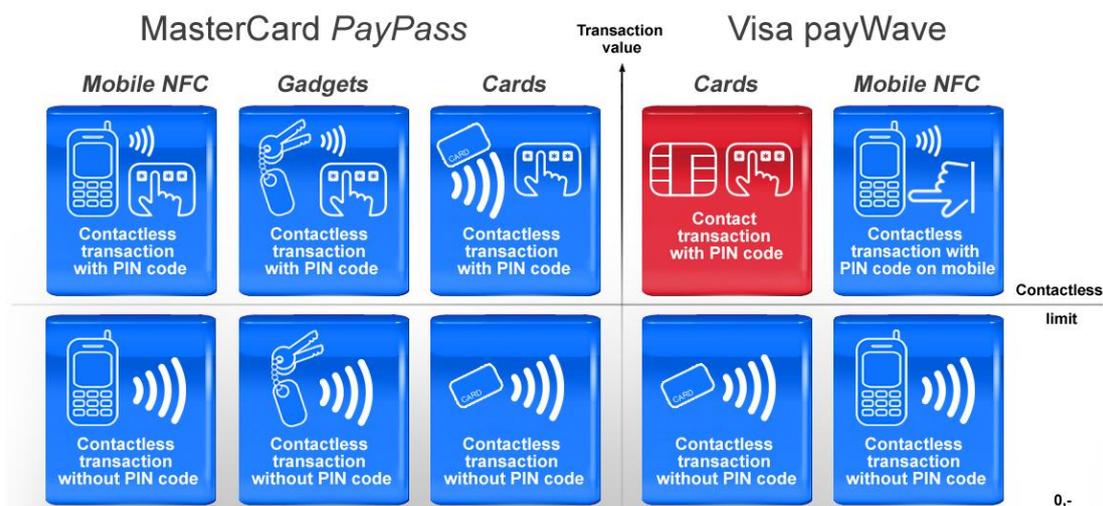


Figure 6. A comparison of transaction execution methods using MasterCard and Visa contactless instruments depending on the value



Visa payWave cards – always EMV, always offline
Jakub Kiwior, Vice President Visa Europe, Country Manager for Poland
 "The development of Visa payWave contactless cards is conditioned by banks' migration to EMV cards due to that only EMV cards are admitted for contactless transactions within the Visa Europe payment system as they guarantee the full security of offline transactions. The speed and the simplicity of contactless payments are of key importance for Visa Europe; therefore, the Visa payWave function always works offline, i.e. without the necessity to authorise the transaction with the bank (which could extend the transaction time) and the PIN code or the signature (unless the predefined transaction limits are exceeded). Such functionality may be delivered securely only with the EMV technology (using DDA - Dynamic Data Authentication), which are required by Visa Europe to ensure maximum security and the shortest possible payment time."
 Source: Visa, 2010.

MasterCard has adopted a different strategy regarding the implementation of the contactless technology (Figure 6). If a transaction exceeds the contactless limit, the MasterCard PayPass technology allows to effect it in the contactless mode but it has to be authorised with the PIN code. Owing to this, the customer always concludes the contactless transaction,

regardless of the amount, which wins their trust in the contactless technology and facilitates the customer service process in the shop. For example, the customer can make a contactless payment in a shop where the average transaction amount considerably exceeds 100 EUR, thus requiring an online operation. Still, transactions up to 20 EUR are performed offline if both the POS terminal and the issuer permit such a method.

The use of a non-standard contactless card (gadget) makes it impossible to equip it with the traditional magnetic stripe or the contact EMV chip (which have to be placed on a ID 1 plastic card of the standard shape specified under ISO 7810). In practice, this causes that the transactions by contactless gadgets are usually performed in online mode. This situation often takes place using the magnetic stripe data transfer technology (Magstripe Image) in the case of stickers and in the EMV contactless online mode, for example for the PayPass watches.

The extension of transaction time (by approx. 6-7 seconds for data transfer²⁹; See: Chapter 2.2) constitutes the disadvantage of online operations permitted by MasterCard PayPass. However, it shall be noticed that even offline operations can cause inconvenience. In the case of an offline

²⁹ Polasik M., Górka J., Wilczewski G., Kunkowski J., Przenajkowska K. and Tetkowska N. (2011), *Time Efficiency of Point-of-Sale Payment Methods: The Empirical Results for Cash, Cards and Mobile Payments*, 17 February. Available at SSRN: <http://ssrn.com/abstract=1769922>

The Global Contactless Payment Cards Market

In April 2009 the mobile operator, Maxis Communications, in cooperation with Touch'nGo, Visa, Nokia and Maybank started the "FastTap" project as the first multi-application NFC project involving the contactless credit. It was also the first commercial deployment in terms of:

- ❑ the implementation of Visa payWave on NFC-enabled mobile phones;
- ❑ a service to integrate multiple NFC applications for a contactless credit card payment and an electronic payment for transit, toll, and parking on the same device;
- ❑ an NFC service to feature the Over-The-Air (OTA) personalisation of credit card information over the mobile service operator's network using the Trusted Service Manager interface.¹⁰⁰

3.3. The global view

The most important contactless payment systems have been presented above. They include either the solutions that were commercialised (Table 5 and Table 6) or significant pilot schemes that were implemented on a large scale by the end of 2009. However, the real picture of the contactless payment market covers also dozens of pilot schemes implemented all over the world by various entities whose aim is to test particular technological solutions and business models. Such projects are usually implemented by many international and local partners that are present in a particular market or would like to enter it. For example, since 2002 MasterCard has been conducting the implementations and pilot schemes of the *PayPass* system in 24 countries, whereas Visa has been piloting *payWave* projects in 19 countries.

The map below (Figure 20) presents the most important contactless payment solutions in the world in 2009 and 2010, in respect of: (a) the organisations which issued the instrument (MasterCard, Visa, or American Express), (b) a FeliCa-based solution, or (c) a non-interoperable local solution. A detailed list of contactless payment projects implemented by MasterCard and Visa all over the world can be found in Appendices A and B.

¹⁰⁰ Near Field Communications World (2009), *First commercial NFC service launched in Malaysia*, 27 April, <http://www.nearfieldcommunicationsworld.com/2009/04/27/3993/first-commercial-nfc-service-launched-in-malaysia/>

Case 8. NFC trial in Sitges, Spain



An important NFC trial was held by Visa, La Caixa bank and the Telefónica mobile operator in the Spanish resort of Sitges from May to November of 2010. 1,500 customers and 500 retailers took part in the "Mobile Shopping Sitges 2010" pilot. Transactions of up to 20 EUR did not require PIN authorisation, whereas those above the contactless limit required entering the PIN onto the retailer's POS terminal. Statistics revealed that most transactions (60%) were of 20 EUR or less, although there were also many transactions for higher amounts. Most NFC payments were made in supermarkets (52%) and restaurants (14%). The pilot results showed that 70% of customers were very satisfied with the service and 90% were willing to use it in the future.

This project is another confirmation of that NFC payments have a high potential and that customers would like to start using this mobile payment method.

Figure 19. Average amount of the purchases in the Sitges' NFC pilot



Source: Visa 2010.

Research report

The Global Contactless Payment Cards Market

Table 5. Contactless payment cards and mobiles issued all over the world (in million, data as of the end of 2009)

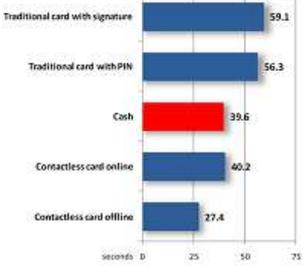
| Country | American Express | MasterCard | Visa | NETS | EDY | Suica | Pasmo | 7-Eleven | Nanaco | QUiC | Pa |
|----------------------------------|------------------|------------|-------|------|-----|-------|-------|----------|--------|------|-----|
| Contactless Cards | | | | | | | | | | | |
| USA | 10* | 65* | 17* | | | | | | | | |
| Great Britain | | 3.3* | 1* | | | | | | | | |
| Japan | | | | 56 | 40 | 7 | 3 | | | | |
| Korea | | 0.3* | 0.8* | | | | | | | | |
| Taiwan | | 1* | 1.4* | | | | | | | | |
| Malaysia | | 0.1* | 0.8* | | | | | | | | |
| Singapore** | | | | 4.5 | | | | | | | |
| Turkey | | 0.8* | | | | | | | | | |
| Poland | | 0.2* | 0.12* | | | | | | | | |
| Hong Kong | | | | | | | | | | | |
| Total cards | 10 | 69.2 | 28.8 | 4.5 | 56 | 40 | 7 | 3 | | | |
| Contactless Mobile Phones | | | | | | | | | | | |
| Japan | | | | | | 7.2 | | | | | 0.3 |
| Korea | | | | | | | | | | | 0.3 |
| Total mobiles | | | | | | 7.2 | | | | | 0.3 |
| Total | | | | | | | | | | | |

■ Cards operating in accordance with ISO 14443 A/B under the EPP Agreement.
■ Including EPP Magstripe image cards.
■ Including EPP Dual Interface cards in accordance with the EMV standard.
▲ Cards operating in accordance with ISO 14443 A/B, other than EPP.
▲ Cards operating in accordance with the Fel/Cal standard.
 * The Fel/Cal-based ExLink functions also in Singapore but is used mostly to settle transport fares.
 ** A total number of 30 million Timoney cards were issued but they are largely used to pay transport fares.

Research report

The Global Contactless Payment Cards Market

Figure 12. The average duration of a purchase transaction by payment methods in seconds – consumers' perspective



Source: Empirical study: Polasiak M., Górna J., Wilczowski G., Kurkowski J., Ptaszewska K. and Telusiewska N. (2011). Time Efficiency of Point-of-Sale Payment Methods: The Empirical Results for Cash, Cards and Mobile Payments. 17 February. Available at SSRN: <http://ssrn.com/abstract=1766922>

Taking into account the time the customer takes to do their shopping⁴⁴, using the contactless card in the online mode is as fast as paying with cash⁴⁵ and 16 seconds quicker than concluding the transaction with the traditional card with the PIN code (Table 4).⁴⁶ However, this does not mark the limit of the technical capabilities of contactless cards. If the transaction is concluded in the offline mode, it is printed at the POS terminal, even shorter. Consequently, it will take on average 12 seconds and as many as 29 seconds less than the traditional contact card with 1

Table 4. Time savings obtained with contactless cards

| Benchmark | Contactless card online | Contactless card offline |
|-----------------------|-------------------------|--------------------------|
| Cash | ▲ = 0 seconds | ▲ = -12 seconds |
| Contact card with PIN | ▲ = -16 seconds | ▲ = -29 seconds |

Source: Estimations based on Polasiak et al. (2011).

The research has shown that contactless cards have been the first electronic payment instruments in history capable of competing with cash in respect to the duration of the payment process. Moreover, due to that contactless payments can be made offline, they take the least time to complete the payment operation as compared to all payment instruments available on the market. Not only can the use of contactless cards shorten the duration of payment but also lead to a factual reduction in queues and service costs as well as to an increase in sales for merchants.

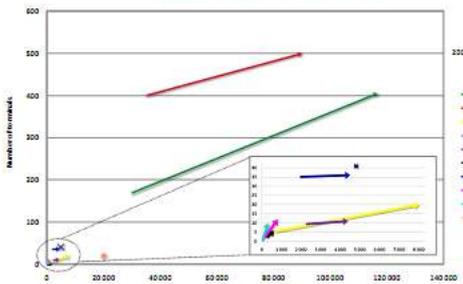
Where are contactless card payments needed most?

Contactless card payments are needed most in the places where it is necessary to serve a large number of payments quickly. Contactless payments help to reduce queues at ticket windows, shopping malls, fast food restaurants, stadiums and other places where mass events are organised, as well as at all kinds of POS where transactions shall be concluded quickly but where cash turnover still dominates. Public transport provides parti-

Research report

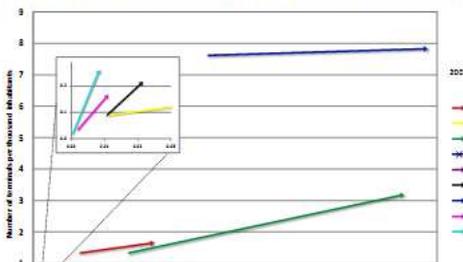
The Global Contactless Payment Cards Market

Figure 15. The dynamics of the development of the major contactless payment markets in respect of the number of instruments and POS terminals



Source: Cioch-Harvey, T. (2010). Contactless Cards and Terminals by Country and Scheme as at 2009. PwC/BCG Consulting, an ICD June. Cioch-Harvey, T. (2008). Contactless Cards and Terminals by Country and Scheme as at 2007. ICD/BCG, an ICD/BCG report.

Figure 16. The change in the popularisation of contactless payment instruments and the availability of POS terminal



perception of the new method by businesses, especially at the initial stage of its implementation. An example of that may be the contactless card which, due to its form, was accepted by society more readily than mobile payments.⁴⁷

Case 16. Biometric technology – mobile payments without logging

In October 2010, Visa jointly with DenizFidelity and Akbank, one of the biggest banks in Turkey, launched the first European implementation of a mobile payment system based on the microSD technology. The mPay technology enables a vast majority of smartphones and other devices which are not equipped with the NFC technology to be used as contactless mobile payment terminals.

Figure 16. MicroSD card inserted into memory card slot in a mobile phone



The mPay solution conforms to the industry standard for memory chips, microSD, and fits into the memory card slot found in many mobile devices existing on the market. mPay integrates seamlessly with multiple mobile phone operating systems, enabling a flexible application interface and interactivity with the consumer. mPay uses an

⁴⁷ Polasiak, M., Harcewicz, A. (2008), op. cit.

proprietary software-controlled antenna and an industry standard dual interface contactless smart card that the suitable Visa payWave, as well as other popular contactless applications, such as transit identification and access control.

The introduction of the technology is a solution for the limited supply of NFC phones. mPay is based on a secure element and compliant with the EMV standard as well as the Contactless. It is also compatible with the iMiles and JetCard applications.

David Winkler, Head of Mobile Contactless Payments at Visa Inc.

"Visa's goal is to develop innovative ways to bring the value of Visa digital currency to mobile users around the globe. Through our collaboration with DenizFidelity, Visa is helping to accelerate the adoption of mobile contactless payments and pave the way for the global deployment of NFC-enabled devices."

Mary Carol Harris, Head of Mobile, Visa Europe

"One of the key challenges to the success of mobile payments is the supply and availability of NFC handsets. With a majority of mobile handsets offered on the market are supplied with integrated NFC, Visa is proactively working with innovators like DenizFidelity and partners such as Akbank to harness the potential of new technologies. These solutions make the future of payments real today, and are key to accelerating mobile payments in Turkey and across Europe. Once again, Visa, through Akbank and our strategic partners, are leading the mobile payment market."

Source: Visa DenizFidelity (2010). Headed DenizFidelity Connects to Visa's solution of Mobile Contactless Payments. Visa Europe, DenizFidelity and Akbank announce launch of mPay, a contactless mobile payment. www.visa.com/press/101010m1.

Deepak Jain, President and CEO of DenizFidelity, Inc.

"This is a mission for banks, merchants, wireless carriers, handset makers, App developers and consumers alike as it delivers a unique combination of consumer preferred devices, smart shop based security and application-driven innovation, something that the NFC ecosystem has aspired for a long time."

Source: DenizFidelity (2010). Visa activates DenizFidelity's mPay/NFC mobile for retail using microchip readers. www.denizfidelity.com/Default.aspx.

Research report

The Global Contactless Payment Cards Market

During the operation, the card has to be put to the terminal at a distance of several centimetres for about one second. The completion of the transaction is signalled by beeps and flashes of four LEDs (a procedure defined in the ISO standard).⁴⁸ The total time of a payment process depends on whether the terminal is offline or online. Offline terminals need only several seconds to process the transaction, whereas online terminals take longer as the operation depends on the type of communication connection used to authorise the transaction with the bank server. However, this is much faster than other card transactions, mainly because no PIN or signature is required of the customer (See: Chapter 2.2 for time estimations).

Safer than cash

It shall be noticed that the basic presumption in favour of the EPP cards was to make contactless card payments faster and safer than cash payments. This was achieved by introducing a system of limits on contactless transactions, which guarantees that only a small amount of money will be forfeited in case the card is lost or stolen. The limits vary, depending on the country. In the USA the limit on a single contactless transaction is 25 USD, whereas in most European countries it equals 20 EUR and 15 GBP in Great Britain. In Poland the limit has been fixed at 50 PLN. If the amount exceeds the limit, the transaction can be concluded in the contact or contactless mode, depending on the type of card. Generally, when the amount exceeds the limit, a traditional contact payment (with the use of microchip or

lost or stolen). When the limit is exceeded, it is usually required to make a contact transaction in order to clear the number of contactless payments. In some cases it is allowed to make an online contactless transaction, which does not clear the limit.

MasterCard and Visa organisations use slightly different methods to mark their contactless cards. Visa payWave cards are always consistently marked with the same contactless symbol (Figure 4 – right side), while MasterCard PayPass cards are usually marked with the PayPass brand and sometimes additionally with the contactless symbol or the symbol of "four dots" (Figure 4 – left side).

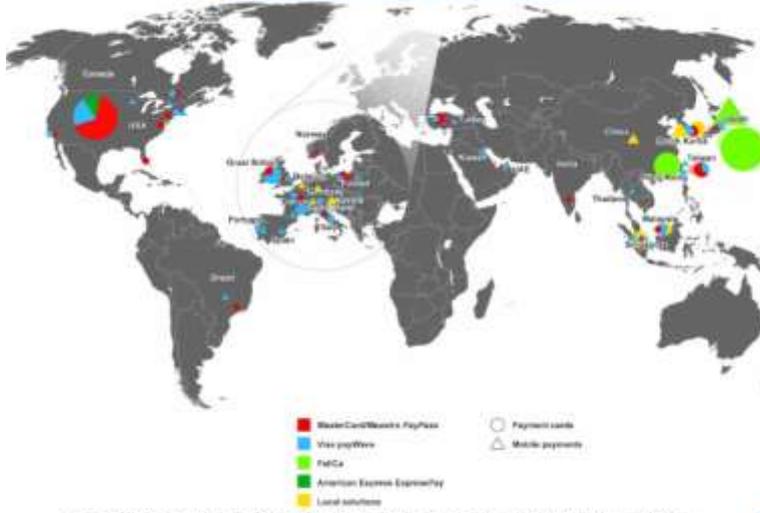
Figure 4. Methods of marking the contactless cards



Source: MasterCard and Visa (2010).

The development of the contactless payment market has become slightly hampered due to that American banks have not decided to migrate to the EMV microchip card standard and retained the magnetic stripe technology. Such a strategic decision resulted in that card organisations have

Figure 30. Contactless and mobile payments methods – implementations and plans carried out in 2009-2011



Source: (1) MasterCard Europe; (2) Visa Europe; (3) Cioch-Harvey, T. (2010); PwC/BCG Consulting; (4) NFC Times; (5) Visa Europe Project Database; (6) Visa Europe; (7) Visa Inc.; (8) Visa Europe; (9) Visa Europe; (10) Visa Europe; (11) Visa Europe; (12) Visa Europe; (13) Visa Europe; (14) Visa Europe; (15) Visa Europe; (16) Visa Europe; (17) Visa Europe; (18) Visa Europe; (19) Visa Europe; (20) Visa Europe; (21) Visa Europe; (22) Visa Europe; (23) Visa Europe; (24) Visa Europe; (25) Visa Europe; (26) Visa Europe; (27) Visa Europe; (28) Visa Europe; (29) Visa Europe; (30) Visa Europe; (31) Visa Europe; (32) Visa Europe; (33) Visa Europe; (34) Visa Europe; (35) Visa Europe; (36) Visa Europe; (37) Visa Europe; (38) Visa Europe; (39) Visa Europe; (40) Visa Europe; (41) Visa Europe; (42) Visa Europe; (43) Visa Europe; (44) Visa Europe; (45) Visa Europe; (46) Visa Europe; (47) Visa Europe; (48) Visa Europe; (49) Visa Europe; (50) Visa Europe; (51) Visa Europe; (52) Visa Europe; (53) Visa Europe; (54) Visa Europe; (55) Visa Europe; (56) Visa Europe; (57) Visa Europe; (58) Visa Europe; (59) Visa Europe; (60) Visa Europe; (61) Visa Europe; (62) Visa Europe; (63) Visa Europe; (64) Visa Europe; (65) Visa Europe; (66) Visa Europe; (67) Visa Europe; (68) Visa Europe; (69) Visa Europe; (70) Visa Europe; (71) Visa Europe; (72) Visa Europe; (73) Visa Europe; (74) Visa Europe; (75) Visa Europe; (76) Visa Europe; (77) Visa Europe; (78) Visa Europe; (79) Visa Europe; (80) Visa Europe; (81) Visa Europe; (82) Visa Europe; (83) Visa Europe; (84) Visa Europe; (85) Visa Europe; (86) Visa Europe; (87) Visa Europe; (88) Visa Europe; (89) Visa Europe; (90) Visa Europe; (91) Visa Europe; (92) Visa Europe; (93) Visa Europe; (94) Visa Europe; (95) Visa Europe; (96) Visa Europe; (97) Visa Europe; (98) Visa Europe; (99) Visa Europe; (100) Visa Europe; (101) Visa Europe; (102) Visa Europe; (103) Visa Europe; (104) Visa Europe; (105) Visa Europe; (106) Visa Europe; (107) Visa Europe; (108) Visa Europe; (109) Visa Europe; (110) Visa Europe; (111) Visa Europe; (112) Visa Europe; (113) Visa Europe; (114) Visa Europe; (115) Visa Europe; (116) Visa Europe; (117) Visa Europe; (118) Visa Europe; (119) Visa Europe; (120) Visa Europe; (121) Visa Europe; (122) Visa Europe; (123) Visa Europe; (124) Visa Europe; (125) Visa Europe; (126) Visa Europe; (127) Visa Europe; (128) Visa Europe; (129) Visa Europe; (130) Visa Europe; (131) Visa Europe; (132) Visa Europe; (133) Visa Europe; (134) Visa Europe; (135) Visa Europe; (136) Visa Europe; (137) Visa Europe; (138) Visa Europe; (139) Visa Europe; (140) Visa Europe; (141) Visa Europe; (142) Visa Europe; (143) Visa Europe; (144) Visa Europe; (145) Visa Europe; (146) Visa Europe; (147) Visa Europe; (148) Visa Europe; (149) Visa Europe; (150) Visa Europe; (151) Visa Europe; (152) Visa Europe; (153) Visa Europe; (154) Visa Europe; (155) Visa Europe; (156) Visa Europe; (157) Visa Europe; (158) Visa Europe; (159) Visa Europe; (160) Visa Europe; (161) Visa Europe; (162) Visa Europe; (163) Visa Europe; (164) Visa Europe; (165) Visa Europe; (166) Visa Europe; (167) Visa Europe; (168) Visa Europe; (169) Visa Europe; (170) Visa Europe; (171) Visa Europe; (172) Visa Europe; (173) Visa Europe; (174) Visa Europe; (175) Visa Europe; (176) Visa Europe; (177) Visa Europe; (178) Visa Europe; (179) Visa Europe; (180) Visa Europe; (181) Visa Europe; (182) Visa Europe; (183) Visa Europe; (184) Visa Europe; (185) Visa Europe; (186) Visa Europe; (187) Visa Europe; (188) Visa Europe; (189) Visa Europe; (190) Visa Europe; (191) Visa Europe; (192) Visa Europe; (193) Visa Europe; (194) Visa Europe; (195) Visa Europe; (196) Visa Europe; (197) Visa Europe; (198) Visa Europe; (199) Visa Europe; (200) Visa Europe; (201) Visa Europe; (202) Visa Europe; (203) Visa Europe; (204) Visa Europe; (205) Visa Europe; (206) Visa Europe; (207) Visa Europe; (208) Visa Europe; (209) Visa Europe; (210) Visa Europe; (211) Visa Europe; (212) Visa Europe; (213) Visa Europe; (214) Visa Europe; (215) Visa Europe; (216) Visa Europe; (217) Visa Europe; (218) Visa Europe; (219) Visa Europe; (220) Visa Europe; (221) Visa Europe; (222) Visa Europe; (223) Visa Europe; (224) Visa Europe; (225) Visa Europe; (226) Visa Europe; (227) Visa Europe; (228) Visa Europe; (229) Visa Europe; (230) Visa Europe; (231) Visa Europe; (232) Visa Europe; (233) Visa Europe; (234) Visa Europe; (235) Visa Europe; (236) Visa Europe; (237) Visa Europe; (238) Visa Europe; (239) Visa Europe; (240) Visa Europe; (241) Visa Europe; (242) Visa Europe; (243) Visa Europe; (244) Visa Europe; (245) Visa Europe; (246) Visa Europe; (247) Visa Europe; (248) Visa Europe; (249) Visa Europe; (250) Visa Europe; (251) Visa Europe; (252) Visa Europe; (253) Visa Europe; (254) Visa Europe; (255) Visa Europe; (256) Visa Europe; (257) Visa Europe; (258) Visa Europe; (259) Visa Europe; (260) Visa Europe; (261) Visa Europe; (262) Visa Europe; (263) Visa Europe; (264) Visa Europe; (265) Visa Europe; (266) Visa Europe; (267) Visa Europe; (268) Visa Europe; (269) Visa Europe; (270) Visa Europe; (271) Visa Europe; (272) Visa Europe; (273) Visa Europe; (274) Visa Europe; (275) Visa Europe; (276) Visa Europe; (277) Visa Europe; (278) Visa Europe; (279) Visa Europe; (280) Visa Europe; (281) Visa Europe; (282) Visa Europe; (283) Visa Europe; (284) Visa Europe; (285) Visa Europe; (286) Visa Europe; (287) Visa Europe; (288) Visa Europe; (289) Visa Europe; (290) Visa Europe; (291) Visa Europe; (292) Visa Europe; (293) Visa Europe; (294) Visa Europe; (295) Visa Europe; (296) Visa Europe; (297) Visa Europe; (298) Visa Europe; (299) Visa Europe; (300) Visa Europe; (301) Visa Europe; (302) Visa Europe; (303) Visa Europe; (304) Visa Europe; (305) Visa Europe; (306) Visa Europe; (307) Visa Europe; (308) Visa Europe; (309) Visa Europe; (310) Visa Europe; (311) Visa Europe; (312) Visa Europe; (313) Visa Europe; (314) Visa Europe; (315) Visa Europe; (316) Visa Europe; (317) Visa Europe; (318) Visa Europe; (319) Visa Europe; (320) Visa Europe; (321) Visa Europe; (322) Visa Europe; (323) Visa Europe; (324) Visa Europe; (325) Visa Europe; (326) Visa Europe; (327) Visa Europe; (328) Visa Europe; (329) Visa Europe; (330) Visa Europe; (331) Visa Europe; (332) Visa Europe; (333) Visa Europe; (334) Visa Europe; (335) Visa Europe; (336) Visa Europe; (337) Visa Europe; (338) Visa Europe; (339) Visa Europe; (340) Visa Europe; (341) Visa Europe; (342) Visa Europe; (343) Visa Europe; (344) Visa Europe; (345) Visa Europe; (346) Visa Europe; (347) Visa Europe; (348) Visa Europe; (349) Visa Europe; (350) Visa Europe; (351) Visa Europe; (352) Visa Europe; (353) Visa Europe; (354) Visa Europe; (355) Visa Europe; (356) Visa Europe; (357) Visa Europe; (358) Visa Europe; (359) Visa Europe; (360) Visa Europe; (361) Visa Europe; (362) Visa Europe; (363) Visa Europe; (364) Visa Europe; (365) Visa Europe; (366) Visa Europe; (367) Visa Europe; (368) Visa Europe; (369) Visa Europe; (370) Visa Europe; (371) Visa Europe; (372) Visa Europe; (373) Visa Europe; (374) Visa Europe; (375) Visa Europe; (376) Visa Europe; (377) Visa Europe; (378) Visa Europe; (379) Visa Europe; (380) Visa Europe; (381) Visa Europe; (382) Visa Europe; (383) Visa Europe; (384) Visa Europe; (385) Visa Europe; (386) Visa Europe; (387) Visa Europe; (388) Visa Europe; (389) Visa Europe; (390) Visa Europe; (391) Visa Europe; (392) Visa Europe; (393) Visa Europe; (394) Visa Europe; (395) Visa Europe; (396) Visa Europe; (397) Visa Europe; (398) Visa Europe; (399) Visa Europe; (400) Visa Europe; (401) Visa Europe; (402) Visa Europe; (403) Visa Europe; (404) Visa Europe; (405) Visa Europe; (406) Visa Europe; (407) Visa Europe; (408) Visa Europe; (409) Visa Europe; (410) Visa Europe; (411) Visa Europe; (412) Visa Europe; (413) Visa Europe; (414) Visa Europe; (415) Visa Europe; (416) Visa Europe; (417) Visa Europe; (418) Visa Europe; (419) Visa Europe; (420) Visa Europe; (421) Visa Europe; (422) Visa Europe; (423) Visa Europe; (424) Visa Europe; (425) Visa Europe; (426) Visa Europe; (427) Visa Europe; (428) Visa Europe; (429) Visa Europe; (430) Visa Europe; (431) Visa Europe; (432) Visa Europe; (433) Visa Europe; (434) Visa Europe; (435) Visa Europe; (436) Visa Europe; (437) Visa Europe; (438) Visa Europe; (439) Visa Europe; (440) Visa Europe; (441) Visa Europe; (442) Visa Europe; (443) Visa Europe; (444) Visa Europe; (445) Visa Europe; (446) Visa Europe; (447) Visa Europe; (448) Visa Europe; (449) Visa Europe; (450) Visa Europe; (451) Visa Europe; (452) Visa Europe; (453) Visa Europe; (454) Visa Europe; (455) Visa Europe; (456) Visa Europe; (457) Visa Europe; (458) Visa Europe; (459) Visa Europe; (460) Visa Europe; (461) Visa Europe; (462) Visa Europe; (463) Visa Europe; (464) Visa Europe; (465) Visa Europe; (466) Visa Europe; (467) Visa Europe; (468) Visa Europe; (469) Visa Europe; (470) Visa Europe; (471) Visa Europe; (472) Visa Europe; (473) Visa Europe; (474) Visa Europe; (475) Visa Europe; (476) Visa Europe; (477) Visa Europe; (478) Visa Europe; (479) Visa Europe; (480) Visa Europe; (481) Visa Europe; (482) Visa Europe; (483) Visa Europe; (484) Visa Europe; (485) Visa Europe; (486) Visa Europe; (487) Visa Europe; (488) Visa Europe; (489) Visa Europe; (490) Visa Europe; (491) Visa Europe; (492) Visa Europe; (493) Visa Europe; (494) Visa Europe; (495) Visa Europe; (496) Visa Europe; (497) Visa Europe; (498) Visa Europe; (499) Visa Europe; (500) Visa Europe; (501) Visa Europe; (502) Visa Europe; (503) Visa Europe; (504) Visa Europe; (505) Visa Europe; (506) Visa Europe; (507) Visa Europe; (508) Visa Europe; (509) Visa Europe; (510) Visa Europe; (511) Visa Europe; (512) Visa Europe; (513) Visa Europe; (514) Visa Europe; (515) Visa Europe; (516) Visa Europe; (517) Visa Europe; (518) Visa Europe; (519) Visa Europe; (520) Visa Europe; (521) Visa Europe; (522) Visa Europe; (523) Visa Europe; (524) Visa Europe; (525) Visa Europe; (526) Visa Europe; (527) Visa Europe; (528) Visa Europe; (529) Visa Europe; (530) Visa Europe; (531) Visa Europe; (532) Visa Europe; (533) Visa Europe; (534) Visa Europe; (535) Visa Europe; (536) Visa Europe; (537) Visa Europe; (538) Visa Europe; (539) Visa Europe; (540) Visa Europe; (541) Visa Europe; (542) Visa Europe; (543) Visa Europe; (544) Visa Europe; (545) Visa Europe; (546) Visa Europe; (547) Visa Europe; (548) Visa Europe; (549) Visa Europe; (550) Visa Europe; (551) Visa Europe; (552) Visa Europe; (553) Visa Europe; (554) Visa Europe; (555) Visa Europe; (556) Visa Europe; (557) Visa Europe; (558) Visa Europe; (559) Visa Europe; (560) Visa Europe; (561) Visa Europe; (562) Visa Europe; (563) Visa Europe; (564) Visa Europe; (565) Visa Europe; (566) Visa Europe; (567) Visa Europe; (568) Visa Europe; (569) Visa Europe; (570) Visa Europe; (571) Visa Europe; (572) Visa Europe; (573) Visa Europe; (574) Visa Europe; (575) Visa Europe; (576) Visa Europe; (577) Visa Europe; (578) Visa Europe; (579) Visa Europe; (580) Visa Europe; (581) Visa Europe; (582) Visa Europe; (583) Visa Europe; (584) Visa Europe; (585) Visa Europe; (586) Visa Europe; (587) Visa Europe; (588) Visa Europe; (589) Visa Europe; (590) Visa Europe; (591) Visa Europe; (592) Visa Europe; (593) Visa Europe; (594) Visa Europe; (595) Visa Europe; (596) Visa Europe; (597) Visa Europe; (598) Visa Europe; (599) Visa Europe; (600) Visa Europe; (601) Visa Europe; (602) Visa Europe; (603) Visa Europe; (604) Visa Europe; (605) Visa Europe; (606) Visa Europe; (607) Visa Europe; (608) Visa Europe; (609) Visa Europe; (610) Visa Europe; (611) Visa Europe; (612) Visa Europe; (613) Visa Europe; (614) Visa Europe; (615) Visa Europe; (616) Visa Europe; (617) Visa Europe; (618) Visa Europe; (619) Visa Europe; (620) Visa Europe; (621) Visa Europe; (622) Visa Europe; (623) Visa Europe; (624) Visa Europe; (625) Visa Europe; (626) Visa Europe; (627) Visa Europe; (628) Visa Europe; (629) Visa Europe; (630) Visa Europe; (631) Visa Europe; (632) Visa Europe; (633) Visa Europe; (634) Visa Europe; (635) Visa Europe; (636) Visa Europe; (637) Visa Europe; (638) Visa Europe; (639) Visa Europe; (640) Visa Europe; (641) Visa Europe; (642) Visa Europe; (643) Visa Europe; (644) Visa Europe; (645) Visa Europe; (646) Visa Europe; (647) Visa Europe; (648) Visa Europe; (649) Visa Europe; (650) Visa Europe; (651) Visa Europe; (652) Visa Europe; (653) Visa Europe; (654) Visa Europe; (655) Visa Europe; (656) Visa Europe; (657) Visa Europe; (658) Visa Europe; (659) Visa Europe; (660) Visa Europe; (661) Visa Europe; (662) Visa Europe; (663) Visa Europe; (664) Visa Europe; (665) Visa Europe; (666) Visa Europe; (667) Visa Europe; (668) Visa Europe; (669) Visa Europe; (670) Visa Europe; (671) Visa Europe; (672) Visa Europe; (673) Visa Europe; (674) Visa Europe; (675) Visa Europe; (676) Visa Europe; (677) Visa Europe; (678) Visa Europe; (679) Visa Europe; (680) Visa Europe; (681) Visa Europe; (682) Visa Europe; (683) Visa Europe; (684) Visa Europe; (685) Visa Europe; (686) Visa Europe; (687) Visa Europe; (688) Visa Europe; (689) Visa Europe; (690) Visa Europe; (691) Visa Europe; (692) Visa Europe; (693) Visa Europe; (694) Visa Europe; (695) Visa Europe; (696) Visa Europe; (697) Visa Europe; (698) Visa Europe; (699) Visa Europe; (700) Visa Europe; (701) Visa Europe; (702) Visa Europe; (703) Visa Europe; (704) Visa Europe; (705) Visa Europe; (706) Visa Europe; (707) Visa Europe; (708) Visa Europe; (709) Visa Europe; (710) Visa Europe; (711) Visa Europe; (712) Visa Europe; (713) Visa Europe; (714) Visa Europe; (715) Visa Europe; (716) Visa Europe; (717) Visa Europe; (718) Visa Europe; (719) Visa Europe; (720) Visa Europe; (721) Visa Europe; (722) Visa Europe; (723) Visa Europe; (724) Visa Europe; (725) Visa Europe; (726) Visa Europe; (727) Visa Europe; (728) Visa Europe; (729) Visa Europe; (730) Visa Europe; (731) Visa Europe; (732) Visa Europe; (733) Visa Europe; (734) Visa Europe; (735) Visa Europe; (736) Visa Europe; (737) Visa Europe; (738) Visa Europe; (739) Visa Europe; (740) Visa Europe; (741) Visa Europe; (742) Visa Europe; (743) Visa Europe; (744) Visa Europe; (745) Visa Europe; (746) Visa Europe; (747) Visa Europe; (748) Visa Europe; (749) Visa Europe; (750) Visa Europe; (751) Visa Europe; (752) Visa Europe; (753) Visa Europe; (754) Visa Europe; (755) Visa Europe; (756) Visa Europe; (757) Visa Europe; (758) Visa Europe; (759) Visa Europe; (760) Visa Europe; (761) Visa Europe; (762) Visa Europe; (763) Visa Europe; (764) Visa Europe; (765) Visa Europe; (766) Visa Europe; (767) Visa Europe; (768) Visa Europe; (769) Visa Europe; (770) Visa Europe; (771) Visa Europe; (772) Visa Europe; (773) Visa Europe; (774) Visa Europe; (775) Visa Europe; (776) Visa Europe; (777) Visa Europe; (778) Visa Europe; (779) Visa Europe; (780) Visa Europe; (781) Visa Europe; (782) Visa Europe; (783) Visa Europe; (784) Visa Europe; (785) Visa Europe; (786) Visa Europe; (787) Visa Europe; (788) Visa Europe; (789) Visa Europe; (790) Visa Europe; (791) Visa Europe; (792) Visa Europe; (793) Visa Europe; (794) Visa Europe; (795) Visa Europe; (796) Visa Europe; (797) Visa Europe; (798) Visa Europe; (799) Visa Europe; (800) Visa Europe; (