



The Cartor group

- Cartor group traces its origins back to 1892 when the founding company was established in Walsall near Birmingham.
- The UK security print division established in 1963, is a highly automated print factory and specialises mainly in long run definitive stamp printing
- The French security print division founded in 1972 in l'Aigle about sixty miles west of Paris, is well known for innovation and specialises in shorter print runs and commemorative stamp printing













Our customers over the years

AMERICA

ANGUILLA ANTIGUA ARGENTINA **BAHAMAS** BARBADOS BARBUDA BELIZE RERMUDA BRITISH VIRGIN ISLANDS CAYMAN ISLANDS COLOMBIA **COSTA RICA** DOMINICAN REPUBLIC **ECUADOR** FALKLAND ISLANDS GRANADA **GUYANA JAMAICA** MONTSERRAT NEVIS NICARAGUA PANAMA SALVADOR ST CHRISTOPHER ST KITTS ST LUCIA ST PIERRE AND MIQUELON ST VINCENT TRINIDAD AND TOBAGO UNITED NATIONS

URUGUAY

EUROPE

ALAND ALDERNEY ARMENIA **AUSTRIA** AZERBALJAN BOSNIA CROATIA FSTONIA FAROE ISLANDS FINLAND FRANCE GEORGIA GIBRALTAR GUERNSEY ICELAND IRFI AND ISLE OF MAN

JERSEY LATVIA LUXEMBOURG MALTA MOLDOVA NETHERI ANDS NORWAY POLAND PORTUGAL RUMANIA RUSSIA SAN MARINO SLOVAK REPUBLIC SLOVENIA SPAIN SWITZERLAND UNITED KINGDOM VATICAN

ALGERIA ANGOLA BENIN **BOTSWANA BURKINA FASO** CAMEROON CAPE VERDE CENTRAFRIQUE COMOROS IVORY COAST DJIBOUTI **EGYPT ERITREA ETHIOPIA** GARON GAMBIA

AFRICA

KENYA REP. DEM CONGO LESOTHO RWANDA LIBERIA SAO-TOME MADAGASCAR SENEGAL MALAWI SEYCHELLE SIERRA MAURITANIA SOUTH AFRICA MAURITIUS **SWAZILAND** MOROCCO TANZANIA MOZAMBIQUE TCHAD TOGO NIGER TUNISIA REP. CON LIGANDA ZAMBIA

ASIA/MIDDLE EAST

BAHRAIN BHUTAN NEPAL BRUNEI OMAN CHINA **HONG KONG INDONESIA** OATAR SAUDI ARABIA IRAO SINGAPORE ISRAEL SRI LANKA JAPAN TAIWAN **JORDAN TAJIKISTAN KAZAKHISTAN** THAÎLAND KOREA **KUWAIT** UNITED ARAB EMIRATES KYRGYZSTAN YEMEN LAOS MACAU

MALDIVES

MALAYSIA

PACIFIC/AUSTRALASIA

AITUTAKI
ASCENSION ISLAND
FIJI
KIRIBATI
MICRONESIA
NEW CALEDONIA
NEW ZEALAND
NIUAFO'OU
NIUE
NORFOLK
PALAU

PAPUA NEW GUINEA PITCAIRN ISLANDS FRENCH POLYNESIA ST HELENA SAMOA SOLOMON ISLANDS SOUTH GEORGIA TONGA TRISTAN DA CUNHA

TRISTAN DA CUNHA TUVALU VANUATU WALLIS AND FUTUNA



Hybrid stamps - context

- Security document forgery and counterfeiting has been prevalent for decades
- Postage Stamps were in the past less targeted by organised crime, but that is no longer the case
- Today many administrations are losing revenue due to counterfeit stamps, but also due to stamp washing
- Stamp washing is an organised illegal activity where used stamps are collected in large volumes and the cancellation marks are removed chemically thereby enabling their re-use



Development of hybrid stamps

- We have been working for over two years with key partners developing the capability to generate data and unique identifiers for 2D barcodes for stamps
- The unique identifier enables the stamp to be cancelled electronically once it has gone through the postal sorting system and preventing its re-use
- The unique identifier is protected and encoded using 256 bit encryption thereby inhibiting the possibility to generate counterfeit codes



Production of hybrid stamps





Functionality

- The data matrix code enables the digital cancellation of a stamp
- It is ideally suited for track and trace applications
- Track and trace information is ideal for big data analysis
- It is possible to assign a value to the code thereby creating a variable value stamp
- Customer interaction is also possible through applications designed to upload a short message into the code stored in the cloud

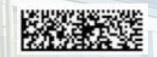




- The original Royal Mail concept for hybrid stamps included a black 2D barcode based on the Mailmark format
- Samples presented in this format were evaluated by the relevant authorities and the response was that the black barcode detracted significantly from the aesthetics of definitive stamps based on the Queen's profile as sculpted by Arnold Machin
- It was decided that the barcode was to be placed on the right of the definitive stamp and in the same colour as the stamp











- The new stamps have elicited a lot of philatelic interest
- All new definitive stamps based on the Machin head stamp will feature a barcode in the same colour as the stamp
- In addition to being more aesthetically pleasing the barcode colours also identify the tariff of the stamp
- Commemorative stamps will have no barcodes for the time being





 Christmas stamps are treated as definitive issues and you can see that the tariff is represented by the barcode colour







 Christmas stamp souvenir sheet with cancelled first and second class stamps. First class tariff is a red barcode and second class tariff is a blue

barcode





 Applications are being developed by philatelic dealers in order to assist collectors in tracking issuing data and other items of interest

BARCODE FIELD POSITION																												
	UPU ID	Prod Type	Version	Stamp Type	Stamp Class	Container	Supply Chain ID					Item ID					Postage Value				Wee	k o	of Manufacture			re (Camp	aign
L	1 2 3 4	5	6	7	8	9	10	11 1:	2 13	14 15	16	17 11	8 19 :	20 21	22 23	24	25 2	6 27	28	29	30	31	32	33 :	34 35		36	37
,	JGB	s	1	2	2	5	1	0 1	7	0 3	1	0 0	0 0	0 0	0 0	1	0	0	9	6	0	8	0	3	2 1		0	2
BARCODE FIELD CONTENT							_																					



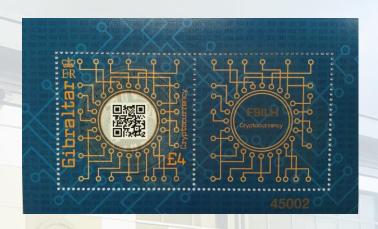


- All UK definitive stamps will be issued with barcodes from April 2022 onwards
- Hybrid stamps offer a new opportunity for philatelists to follow the development of what could well be a new Penny Black event in the evolution of the printed receipt label for a pre-paid logistic service a.k.a. a postage stamp!



Crypto stamps - addendum

 The Cartor Group has recently produced a crypto stamp for Gibraltar



- Several administrations have now issued crypto stamps manufactured by very competent actors and Austria Post has an impressive set of crypto stamps issued over the last few years
- There are today in this forum other presentations on crypto stamps which eloquently detail this very exciting and current opportunity in the fast growing universe of crypto stamp collecting

