2023-02-05	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address		Final cost ETH	Final cost €		
	0x5b9398a1dce181cb213fc795774a63468fd8896692384898b7694257c677eadd	1692477	55	0xf589c5b6379238De28455A2F9B8366978914D6B0		€ 0,000000000093086235	€ 0,00000014199653545605		

2023-02-05	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)		Final cost ETH	Final cost €		
	0xa631a930800198e29d581da99319c49c722d4d8235b151bee68fc3a379f8c3c51	1692477	59	0x02E41C57fD9Be838CD122053D43D8725ABa5f4b5		€ 0,000000000099856143	€ 0,00000015232355621649		

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		ETH/EUR 05 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)			
2023-02-05	0xe7fbd4c8b5958d0361ca36ca0e7c1ed5429f771b329c6d3c64177ff18e1ffd96d	67153	51	€0,000000005	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) key_on_block	€1.525,43			
	0x4fe2d7de37cc4d977650745f97f44635288e072c80662f94d64a45fe87102ba2	67153	52	€0,000000005					
	0x0f32bfd6dd41f482473d582519e13954026930d0c3da570476ff3f42465b386e2	67153	51	€0,000000005					
	Average	67153	51,33333333	€0,000000005					

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price					
2023-02-05	0xebb5e11ee419dff9f17cef5183c4e2d69e859b53fdbe61d63b466efcd029ed46	67153	55	€0,000000006	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main				
	0xdcf859425a4c454fdd057ae2f38dc3b730c1d4f823d2b241bd3aa78ef08d21ce	67153	55	€0,000000006					
	0xb59d9a15966625cce7139bc172076cb8b16e9ac491da4cfaed521bb633508212	67153	54	€0,000000006					
	Average	67153	54,66666667	€0,000000006					

2023-02-05	0xdc561d89fbccbf17799cf848dc8eeed4362454471bffa15fe592f172ab840113	67533	50	€0,000000005	Transactions for the storage of the user's attributes. Action 1 of the MARTSIA approach				
	0xf0637f47099c5f22c8627c3b86d66bcf911a6721d86e7fb61070bf30b5cec36f	67533	50	€0,000000005					
	0x221c1ada61f3a7f506c78d63c32c57cd0f3feb3217c11b7aa81208d988a7fb72	67533	51	€0,000000005					
	0x2f4c8f2e1f9a080741fb1fa96804daaf397cfbf2204d0a61c915048a8c9a9728	67533	52	€0,000000005					
	0x73a4a4e34dc8385c733f9a32d64b3d9192e5cab2ba31b18ca4ba60a462b689f1	67533	53	€0,000000005					
	Average	67533	51,2	€0,000000005					

2023-02-05	0x0a111bd7a6ffdb00c6a08ef382b4f4fc5f8e390f409c08ecdf2bc002806f1413	67755	52	€0,000000005	Transactions for the storage of the authorities' names. 1st action of the authorities (each of them: one transaction per authority)				
	0xb2ab1b3c57f2456c7f8c2d28d2ab9b9787dd827f202463e95cb6b776191d4f0a	67755	51	€0,000000005					
	0xec2e82bbfd2c8ef177b0a7971cb5ce4bb5e8dcf97d838471e758fd5831fd5cfe	67755	52	€0,000000005					
	0xac1b4ca334c02303cb874778aff8c8290f91a8cab3c1d2f3dad5435d6ef8b7b5	67755	52	€0,000000005					
	Average	67755	51,75	€0,000000005					

2023-02-05	0x9e683214bcbdb2f710c702746d163d7ea6935e10f5b81d414032d378472b8b8e	113680	54	€0,000000009	Transactions for the storage of the hashed elements. 2nd action of the authorities (each of them: one transaction per authority)				
	0xf8cf697b9cb7d638843c3e7ab6a5ee53f997cd74e1c7b7fe5836050dd2ee3b0e	113680	53	€0,000000009					
	0xfc1c48dcc068dff1f6190cc53700d53f059b59530881045bbeef42fbbbad14807	113680	54	€0,000000009					
	0x4887c042cc63549d1cb01df9af340e34bee09fa2ba0253981addd15be151cb40	113680	54	€0,000000009					
	Average	113680	53,75	€0,000000009					

2023-02-05	0x8f3cbc0577e7ccc0459eed5bebb984213f10d0f60d19f0d8e574fe130c2aa3e2	159693	51	€0,000000012	Transactions for the storage of the elements. 3rd action of the authorities (each of them: one transaction per authority)				
	0xf4ea672cd34bee7fbd6a08cd0d3d6e886cac9e056bdba07d8834b0d6cb1c85a9	159693	51	€0,000000012					
	0xf475b6896d45ea8993551 6ed6ff0ef9a6c422ce16149a362d035b166a45dff96	159693	52	€0,000000013					
	0x3f45ab76346e8476a10db88169ad08bbb81acfd88bfd4a6ad695b92dddd19f75	159693	53	€0,000000013					
	Average	159693	51,75	€0,000000013					

2023-02-05	0xa73a91936c4571a9cd0cc37b8a38147a6dba92712b30c79e31f0bf36262f2e5e	67731	52	€0,000000005	Transactions for the storage of the public parameters. 4th action of the authorities (each of them: one transaction per authority)				
	0x5cbf7fcf7fd57cefcaffe573d3f3cb9033c2f6730b7b27736deffe3e4c3aeecd	67731	51	€0,000000005					
	0x508dea2e6ca2819627468a4eae27e5bd55e22c54ca16f10578d029da2e38adb1	67731	51	€0,000000005					
	0x83e6023d9e5ccab15ef8d31d6bb5e8f21e798c870b2039ef20bd85a738e8e31	67731	53	€0,000000005					
	Average	67731	51,75	€0,000000005					

2023-02-05	0x4f31c8016ab203042b5b70ce5a6f492425a18a15e8854cf6e1ca175a6cb37e1c	67688	52	€0,000000005	Transactions for the storage of the public keys. 5th action of the authorities (each of them: one transaction per authority)				
	0x9741c913f0a42a5e5547e9841b9c0681c42b52ae94a897d3a0bcbbc04e4c23cb	67688	51	€0,000000005					
	0x12555f50b47b52ed3a6c86ba6504f9a8065ae72ca27f218887e428fb71a87dbd	67688	50	€0,000000005					
	0x4dbaca6f19af50af341380e1bfe0d1a352d6f6811464e27c1e3eab394a0b3c4f	67688	51	€0,000000005					
	Average	67688	51	€0,000000005					

2023-02-05	0xe0663a4475007a572f3d9857ef0ce0a5ecedfc3f64c3ebd1394c598ac7e96ce4	89772	55	€0,000000008	Transactions for the storage of the IPFS link. Action 2.4 of the MARTSIA approach				
	0xd76347c3152e47fa299b9d27dea33e0bf529356641027e6badfa825d00370fd	89772	54	€0,000000007					
	0xd0f345246e43f356f49e302000677c52f4daac0ee5136cb978073eb17ef5c627	89772	56	€0,000000008					
	0x209b4d1acd5b14be77d1d00b42cf0b07de999144bbb4fdd294c54e211ae0fad1	89772	56	€0,000000008					
	0x19339b05cd3da213519a2c2891e4c263db6957358366b45e242e280fda39d169	89772	56	€0,000000008					
	Average	89772	55,4	€0,000000008					

2023-02-05	0xd8a6676de6f142271bacaaed860b29917ba457d3cdbb9d8e6321d9ef620914b4	21848	54	€0,000000002	Transactions for passing the key. Pair of transactions: key request, key on block. 1st auth				
	0x824222a758783111acd94f6fd1a17afc45131c8fd39d8ea6bbb837ca0157a29e	22072	55	€0,000000002					
	Average	21960	54,5	€0,000000002					

2023-02-05	0x6dd414e163564a7d945ed9950a029456f3192dfdd8fbce135732708d28a88518	21848	56	€0,000000002	Transactions for passing the key. Pair of transactions: key request, key on block. 2nd auth				
	0x60e3579c212cca6a6f083e2e70552d21cf508d5a1a966bcdc4e0e28d58f7d14f	22072	56	€0,000000002					
	Average	21960	56	€0,000000002					

2023-02-05	0xf4cf65e136eebb02883a7ad69fe63508675835d5e4d295ada96e9ebfad6e1e67	21848	55	€0,000000002	Transactions for passing the key. Pair of transactions: key request, key on block. 3rd auth				
	0xf2d200003f541e52cae1c966a53680947a7987f74e082ff0add764a188f73ab5	22072	54	€0,000000002					
	Average	21960	54,5	€0,000000002					

2023-02-05	0xd1515f50c2043a1c76b01e53d90f03a538d1085d09e1557a139cfec8080ed5c3	21848	55	€0,000000002	Transactions for passing the key. Pair of transactions: key request, key on block. 4th auth				
	0x1a3c8767c10b77c211bb5741faba5cea593de48daa78cef1b777eb0006be7270	22072	60	€0,000000002					
	Average	21960	57,5	€0,000000002					

2023-02-06	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address		Final cost ETH	Final cost €		
	0xc0f44b764026abf06aa8faeb18da9d868cb685fb8db3a7d325beb3500e469e61	1692477	2477	0x450B6bE20dBd2bf2F50183d0859bd5421F0D3A34		€ 0,000000004192265529	€ 0,00000634545502734969		

2023-02-06	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)		Final cost ETH	Final cost €		
	0xb06bb7ce84ec5335dd2b52e31e68cf7e0f2c6aa5551fedaa4d6198390178d82	1692477	3502	0x8cF38d67c8d3DdaB613bd087C45CFa6172796C35		€ 0,000000005927054454	€ 0,00000897124889211894		

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		ETH/EUR 06 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)			
2023-02-06	0x508f1e075039ea4afdb8339971dfd64d495eac8eab3d1c521f1da9e35dd3cd47	67153	5048	€0,000000513	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) key_on_block	€1.513,61			
	0x9726e822331aeae3f0f3ad4078ff0832cc69cec379b8c2c94f690a52c915e9bd	67153	5166	€0,000000525					
	0xce2ae3122c2c6ef337f227cea352dbaecff4680c0698298cb08331f1c709f23	67153	4783	€0,000000486					
	Average	67153	4999	€0,000000508					

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price					
2023-02-06	0x6957ca13ddd4e916f39310db794c33e26a799d6739ea0f5e1f782e0ce25a55ae	67153	4198	€0,000000427	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main				
	0xc7f93d5e3ed6af6b08a05695fec27a764f2d07fff95dd6254fb413d6bef761ce	67153	3603	€0,000000366					
	0xa3a015fec5123e46de1fd86c3768c6cf83dc316413856d06e3ebca9d87b69818f	67153	4406	€0,000000448					
	Average	67153	4069	€0,000000414					

Date	Transaction hash	gasUsed (unit)	gasPrice (wei)	Final cost €	Description
2023-02-06	0x3506ef2504b6920d8d083cd175669a5059f5cc5003324a8e5cafa92228ccce9d	67533	5762	€0,000000589	
	0xf9281735f2302a6c427f9a758943fe0613e0d4381606d18e6ce700d70a8379ff	67533	5575	€0,000000570	
	0xed37da7e3c0a03420f8a3113f52b93af6deb6855094eabb181c84a21110de1ca	67533	5426	€0,000000555	
	0xb97a56cec1b6df1a76c4b1543704538a0d110c8aeb6aeca0b32a32bcee08a085	67533	7085	€0,000000724	Transactions for the storage of
	0xe9bd3bee940fb7cc4827e90894374235426f43d304ab6a571b1f7c00b980611f	67533	22241	€0,000002273	the user's attributes. Action 1 of
	Average	67533	9217,8	€0,000000942	the MARTSIA approach
2023-02-06	0x2b48359cbdc97f6fa176f0f0ae7c5ebef3c6cf8852c7722f2658b22ec03772ec	67755	20130	€0,000002064	
	0x2814e881e33c353a653e8cc5c3b4dea22acfa7da06899506c5b7f2739b719328	67755	18943	€0,000001943	
	0xad3e59435ff1b6909bf66a4f03f10e83ce526e897f012b48a34516f80f8142e7	67755	18603	€0,000001908	Transactions for the storage of
	0xaa3e9ba3d800dac9cdec9cb479905a09565b652435c6c99b0e46ffb6a91e25cf	67755	18013	€0,000001847	the authorities' names. 1st action
	Average	67755	18922,25	€0,000001941	of the authorities (each of them: one transaction per authority)
2023-02-06	0x11849bbd05e8074d8dbea416d945bda7abb48d026a32e0c510786b2d8fa9dc9f	113680	18075	€0,000003110	
	0xa4f5760e885e0736ccd01b2283f1153a0d22c66be39f53dc94584cd589203ef0	113680	23129	€0,000003980	
	0x9e41c8347747f721cd594bd6751c5441cd025791e87000bb3cdcb197281d63c5	113680	35856	€0,000006170	Transactions for the storage of
	0x4abec52d54eafcfba29a26f8fe2bb07694265bae61b219f523e0daaaa18cdf63	113680	33502	€0,000005765	the hashed elements. 2nd action of the authorities (each of them:
	Average	113680	27640,5	€0,000004756	one transaction per authority)
2023-02-06	0x6c8d4f3b9beb036fc55649f11d436301725ccecbaa6757248d22edb55ad6e326	159693	33248	€0,000008036	
	0xfe8ab0e80c9c993a940c9c35d10dc6bdbfc1f7f007113829b86e40d6e899eb7f	159693	33474	€0,000008091	
	0x24d012e95149e473349cfc6185ddd596a801dd32f9f5e63635c6fbb203a0aada	159693	35329	€0,000008539	Transactions for the storage of
	0x35064be590494724a73e5bed470ca19c4c99f040436386f9e756f9acddfe1b1e	159693	37580	€0,000009084	the elements. 3rd action of the authorities (each of them: one
	Average	159693	34907,75	€0,000008438	transaction per authority)
2023-02-06	0xee14b4f104425721509463560f7fa6c64bb78bd59eec25de341c9699731780153	67731	50896	€0,000005218	
	0x7a6974c48944e3ddcf5f4b9f65a4317323084f73d9d4f4cf4246b8b2b23b6aa6	67731	84083	€0,000008620	
	0x367da0857a840de16016cdd2ef498c69533afea7d95948630563f7611a945d7c	67731	100691	€0,000010323	Transactions for the storage of
	0x56a98c2b9ab5e515fbd177a3aff3a1bfe474bc5f7cc356ae81091af5d5223e37	67731	289530	€0,000029682	the public parameters. 4th action of the authorities (each of them:
	Average	67731	131300	€0,000013461	one transaction per authority)
2023-02-06	0x6ae7c7fac891303b151c6d0328d32c49beb83040c1f05f5fe23c42d5c2af3bdc	67688	332952	€0,000034112	
	0x657d2e505d700b82bda8fd66b64392bdde28d53ddb3ad3624b544f4d372f99a5	67688	331883	€0,000034002	
	0x75b0b07059ca1e22138dad487f5851f2564e39fcc46fff9ede5def9649c0bf569	67688	411865	€0,000042197	Transactions for the storage of
	0xc7a35c158132ab54a34c6a9ad950398 1b89c9d5cd83caf16f46dc7ac717ed10e	67688	1506002	€0,000154295	the public keys. 5th action of the authorities (each of them: one
	Average	67688	645675,5	€0,000066152	transaction per authority)
2023-02-06	0x15dc5c98b0db207d87e66c95685e6156a124889458b3ebf8fc6f3b45355401ad	89772	1567185	€0,000212949	
	0xbaecc16f2c5190ddefecde1910100b1ca5badc4fe25175a38ecf6f5a53b5f93f	89772	1585643	€0,000215457	
	0x956c9b17aa664028986979cccb5f2615af0b7da0158b89e2a33444b0b019f4fb	89772	2190456	€0,000297639	
	0x2e5f8b6ca8e485b55e2fbadc87f97b863b032a4dda5c6dc0831ca91db0ce954b	89772	3563157	€0,000484161	Transactions for the storage of
	0x3dcd3997244596a3c2cf65bdd1d041f06a525f4030c09607b8beaa463a55a039	89772	3576937	€0,000486033	the IPFS link. Action 2.4 of the
	Average	89772	2496675,6	€0,000339248	MARTSIA approach
2023-02-06	0x0155d785579c1475207633910f06335955ffaf1eff630ec740ca142f976b5a0ee	21848	3176103	€0,000105032	Transactions for passing the key.
	0x602efc511600a76bffd5c4a7d24469a5b6dd54ffdc9b4d83a20e2a3c9eedcc62	22072	3386869	€0,000113150	Pair of transactions: key request,
	Average	21960	3281486	€0,000109073	key on block. 1st auth
2023-02-06	0x922d47c9e0bb7a7d4871f177b616f6e6ee15ae84baa5ae65f015a35cb66b4e83	21848	3412312	€0,000112843	Transactions for passing the key.
	0xdb7296c6e875f446c133f9ef8b6723076f30d5e3524e36c8559b15e89ddbd6dd	22072	3244418	€0,000108391	Pair of transactions: key request,
	Average	21960	3328365	€0,000110631	key on block. 2nd auth
2023-02-06	0x4e442761a6ce599fc82f53dac666ab610dbfc8fe71c57aa58060b27970d05a11	21848	5099752	€0,000168645	Transactions for passing the key.
	0x15fdd8447c48b77edea76cbdb366de2c4b4a16d54a90e51f151e9c3ff231c4e2	22072	5429218	€0,000181381	Pair of transactions: key request,
	Average	21960	5264485	€0,000174986	key on block. 3rd auth
2023-02-06	0x8fb69fc96e7e65f4febeed962e14bfa6ecc8e0c85d0df556812efde50afc151f	21848	5328424	€0,000176208	Transactions for passing the key.
	0x8141bba2343976168e52b21d8c00b910ce52366bb6cacd92a5e2ad0c8cf71f61	22072	4665081	€0,000155853	Pair of transactions: key request,
	Average	21960	4996752,5	€0,000166086	key on block. 4th auth

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Date	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address			Final cost ETH	Final cost €
2023-02-07	0x2f72585a6550884d80a434c558c3f3b7d778162445e0e7f4156787ffc7fa0da6	1692477	97329664	0x9D5820d6fdB4bE0340428FA1B9Ea9E65E8976872			€ 0,000164728217737728	€ 0,252730973499754000

Date	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)			Final cost ETH	Final cost €
2023-02-07	0xec2d317ecdcaf58bdd5868f97d5e6eaadff5f9c74a7f53bbf5d9202b069eaf93	1692477	97337691	0x3d4A4FF31Cfe16af9af53F0078CE80ccc13ad322			€ 0,000164741803250607	€ 0,252751816801179000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		ETH/EUR 07 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)		
2023-02-07	0x68417bd72353fb1b6e370dab8f96bf0f3ccc1bf7e6c2e111dd497254e2ffcb6a	67153	101024976	€0,010408416	Transactions for storing public	€1.534,23		
	0x5550ef8b7d00c77f821491cf5651e0b5dc907ab776ee0a015eb458444b3358c9	67153	101646001	€0,010472399	key readers (actors). One for			
	0xc2a39eab3c91ca796a421fc0f19462511ad544c46a42893f79195f2133f42f64	67153	100729788	€0,010378003	each of the users (manufacturer, supplier1, supplier2)			
	Average	67153	101133588,3	€0,010419606	key_on_block			

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price				
2023-02-07	0xdd6eafd1d5f85d877ff7725a61891476c2bda7757c5d806a779a63876e1492fda	67153	99313865	€0,010232124				
	0x76e191292fe5c50da331372331b2d39931841bf40a3c81100e4168b230ad912c	67153	100259418	€0,010329542	Transactions for storing public			
	0xc99adf2706b1a38c09aa78e718ccf7f4c85a32d781313684fb34459433f96996	67153	100623812	€0,010367085	key readers (actors). One for			
	Average	67153	100065698,3	€0,010309583	each of the users (manufacturer, supplier1, supplier2) main			
2023-02-07	0x8f78eeaa662979f74c0cb5fb62b1cb5ed15a69be826ecf958300ccbcad219700	67533	101536155	€0,010520278				
	0x7e3f1cabf67b5dc21bd23bc14735f2299a55b0d312ae01e7528bc0b0add32e38	67533	102183102	€0,010587309				
	0x5f5a86401b78358c40a2d93cb9b9b54b390e7c7d08a6f06af56f7bc5c35f3743	67533	103291122	€0,010702112				
	0x2d1cee34dec2d823cc73c47c4fc1772be9fca31fce0eb59416ac24f23d61ea54	67533	104023398	€0,010777984	Transactions for the storage of			
	0x9da73564755e6b82f58d6a703dc4e994ad4831c0711153a900c63ad8f4d517e2	67533	103910681	€0,010766306	the user's attributes. Action 1 of			
	Average	67533	102988891,6	€0,010670798	the MARTSIA approach			
2023-02-07	0x7ac9ec17ba85ec16d9207fe85b503f35cf818a0a4d7860c3abf2c8c26efffbf0	67755	102719297	€0,010677851				
	0x665f6fe5d03448b00fd8def5d300a5bea9ad90a5057d795cc7c3a8812a6eaf7a	67755	101919254	€0,010594685				
	0xabb7e535aa0b4d452cff9c4b449f381d15db9df5e4153fa3e11692dfc21174f7	67755	102456188	€0,010650500	Transactions for the storage of			
	0x5e75136 7d51914c03ba5343411eb19cb17df24bf419075d4ce6d7f9a1bacb9a1	67755	102135721	€0,010617187	the authorities' names. 1st action of the authorities (each of them:			
	Average	67755	102307615	€0,010635056	one transaction per authority)			
2023-02-07	0x5e3850e274f2b33babbb2984de8b63c515cae067efa71920880ad358f02af633	113680	101742337	€0,017745010				
	0x8799da69a9cf691a85d121dd8558b2b25f2ad300f9a04cfddffdf4e44a3c9202	113680	102061530	€0,017800681				
	0xddb0d704156ac75a1bec3cba90f2def181849b41feb54d5f11d4fc44f257a638	113680	101279950	€0,017664364	Transactions for the storage of the hashed elements. 2nd action			

Date	Transaction hash	gasUsed (unit)	gasPrice (wei)	cost €	Description
	0xbe9b6aad25844c31767d73376d0852871f7c69a38612e96fd3e56063b376245f	113680	100961468	€0,017608817	the hashed elements. 2nd action of the authorities (each of them: one transaction per authority)
	Average	113680	101511321,3	€0,017704718	
2023-02-07	0xe6e45e9e3e998327591bdc96b6e9f7f62dd4eaf75d136136ad951a0a74caa421	159693	101257454	€0,024808663	
	0xf50f4098ccd8568194b866d63ead800d8b9b0fb89c060e8995cd3f0be56f3f06	159693	103106317	€0,025261645	
	0xb81d55adb0de6bd8fb816a6c423bde22ac91b5fabf2fb1f1c0ccd56608d76baf	159693	103814455	€0,025435143	Transactions for the storage of the elements. 3rd action of the authorities (each of them: one transaction per authority)
	0x1b60ba914843ba0705a7b3b0bf526ac9c4d970be73cb1a3d2d673950ffae697d	159693	103324678	€0,025315145	
	Average	159693	102875726	€0,025205149	
2023-02-07	0x271a48e8ef851213ecbce6093366b71e893f92fdeb48954e426679c137681758	67731	104992011	€0,010910238	
	0x8300b821099300946f9be32debe70fe6f0b808f7ff2e8041aa65b16693df936d	67731	107687099	€0,011190298	
	0x82b9ca7fb3f396d3fcc196e749134da91d54ed2239613b58ff3aae5b4a00a3e8	67731	108545612	€0,011279510	Transactions for the storage of the public parameters. 4th action of the authorities (each of them: one transaction per authority)
	0x7d6792dee8113f4d73c5ff2b3e93b6675d93276a7327310d2be80f014c3d809	67731	107565457	€0,011177657	
	Average	67731	107197544,8	€0,011139426	
2023-02-07	0x55491963f1fa0f1c70008f3db84ceb573c8094328bb433a85015cd71889c6e72	67688	108498409	€0,011267447	
	0xf06f6c08b15bb31c10827a3b699fe103e1432735f8a3c68810d168e035a5478e	67688	107365742	€0,011149821	
	0xf9c644f2e01bbae0e4d04a327f4923e3c317626fb72a0b3542b30be5ec393684	67688	106180362	€0,011026720	Transactions for the storage of the public keys. 5th action of the authorities (each of them: one transaction per authority)
	0x04ffe33a647dc48388ec89d9abe682a2bb7d6fd8a51838a7da80850f3904ab48	67688	105111904	€0,010915762	
	Average	67688	106789104,3	€0,011089937	
2023-02-07	0x94e8ceb66af47d0db02f2ce801321febc5b0de48ccc8a84289e07298cc2947c1	89772	105899165	€0,014585587	
	0x155842a51b0368a9f43e2b62183eb9b4b7126bf5491857cdbf3dcf87d37b023	89772	108741353	€0,014977044	
	0x752881b04ba7b7b346b803ad72b8a8d12ceaaf2d74afa98df5f32d4cc98e59b9	89772	109307081	€0,015054962	
	0x3f8930553b6410b9df89015829b7416c05748c78995acccb37ca4335fe33612	89772	107035255	€0,014742062	Transactions for the storage of the IPFS link. Action 2.4 of the MARTSIA approach
	0x5b9d2fdd38b6ce1ce23aa1ef3ea2e49e1b54a388a6c1a9b1e4da09658d2ffb55	89772	106536546	€0,014673374	
	Average	89772	107503880	€0,014806606	
2023-02-07	0xccd7165ba5f245f9eece199a48dc344d972514f6348013bade0f8ae78fb33a1f	21848	106181813	€0,003559199	Transactions for passing the key. Pair of transactions: key request, key on block. 1st auth
	0x64a496b50b51a86fec263faadf0583e830b9d3e1d4424eaa5e5ec9ae493b2820	22072	103650109	€0,003509958	
	Average	21960	104915961	€0,003534796	
2023-02-07	0x5a80ca9b8b68e60c497cc5b2b83b5b4916782264581a9da357598c8bd009041a	21848	105135010	€0,003524111	Transactions for passing the key. Pair of transactions: key request, key on block. 2nd auth
	0x95590b7d9c6174a988cdcd529947ffa6a29c5e4ae58258f04e1df17bf3c343da	22072	104555649	€0,003540623	
	Average	21960	104845329,5	€0,003532416	
2023-02-07	0x752205d834ec1516e13c26722932be5665ab2c1ea9525f89a41d7e5785a40e75	21848	103998068	€0,003486000	Transactions for passing the key. Pair of transactions: key request, key on block. 3rd auth
	0x49587519a99f8cbcb14d786a171597195bfe85fa7c38aaf5c5f388173c51d83e	22072	104719482	€0,003546171	
	Average	21960	104358775	€0,003516024	
2023-02-07	0x89914d026778ba8d5678331a83b06a5bebc00ceb74315ae1e583204949fb7b16	21848	104462339	€0,003501563	Transactions for passing the key. Pair of transactions: key request, key on block. 4th auth
	0xbb1f38c16bfe102b05249645f10d773ca2572c9874dd07bc74e1b040d191648b	22072	103361104	€0,003500171	
	Average	21960	103911721,5	€0,003500962	

2023-02-08	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address			Final cost ETH	Final cost €
	0xa1134c45aff381115d74bd6a3db9c15957da785c750c8aa28cf60c83111c2e7f	1692477	84712	0x91eDfb150695229a076304A29e66A261C1e9E69E			€ 0,00000143373111624	€ 0,00022332369359000700

2023-02-08	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)			Final cost ETH	Final cost €
	0x068d34c8cede0c562707d33ba7f12bd0a0e2f56a7552245f636335afa94f5f3f	1692477	136262	0xCE535C6A1c9122D8ED6200B571b5d23c8A77776C			€ 0,00000230620300974	€ 0,00035922340560914100

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description	ETH/EUR 08 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-08	0x865866c227f821cdce84342ea8070ff31080abe4091c5562f5b98141bad4f3fe	67153	122557	€0,000012819	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) key_on_block	€1.557,64
	0x83c8eea2f21e964a52e1c1fdbc2fcf11818195036ddb9e56e92ffa0992a54e7d	67153	335321	€0,000035075		
	0x477fd7e33344ee5db4ac911b15dc9c2746c1e03e784ec43556d5a9537520aa9b	67153	308598	€0,000032279		
	Average	67153	255492	€0,000026725		

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description
2023-02-08	0x505080738ca8ebfdd961f094d3c2dbf4469bb9d8d2726ad047f49f38a6293500	67153	117382	€0,000012278	
	0x9079d9a16111a083494f53057e22fe64570c41aefc711f2dbf740a14ea3f59cf	67153	112747	€0,000011793	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main
	0x4ff69425c857b95498ce96f65c28111ee6f7a031f2e9e6849eaecaae27c63ea23	67153	101983	€0,000010667	
	Average	67153	110704	€0,000011580	
2023-02-08	0x42c15d0c23c2a3177a75935d2c49a541c3a8964cbd82e0d9414c99b785cce502	67533	339861	€0,000035751	
	0x1a0be5d79e67b3ab34c855cca6703e0b1f1d7004279f1baafd730690d4312d0c	67533	370151	€0,000038937	
	0x111c2b99a59e0bbe408520cdee61e8bcf986ef46819f126e1df1052f0520f48e	67533	377070	€0,000039665	
	0x9968d0ac54798892aba2d36cf211c0c6366d1b2e7711545a0cc253607eea544b	67533	378831	€0,000039850	Transactions for the storage of the user's attributes. Action 1 of the MARTSIA approach
	0x85e094f74167603aa29d20a476d2b1818dbc55bd39de3b20b2d7fe4278d0bc62	67533	369891	€0,000038910	
	Average	67533	367160,8	€0,000038622	
2023-02-08	0x51c9ff6498d49a6317984e506202601a9fbd6bb01cd01b32a2796c2b1e18b888	67755	438193	€0,000046246	
	0x23791656d2fb0802637d4d41d824f248df1dc931e4b44d7da12b7a976feb3d8fd	67755	389446	€0,000041101	
	0xccae7d9cc654e5c9213a5a7b52d38dd6c15295d31f7c61b1e206cacbc30cb48c	67755	384786	€0,000040610	Transactions for the storage of the authorities' names. 1st action of the authorities (each of them: one transaction per authority)
	0xb209379421fd8023a649cae43c75f896ed567813a017fbb12808d2a59e1bce37	67755	364064	€0,000038423	
	Average	67755	394122,25	€0,000041595	
2023-02-08	0xe32dffa802889455adef6ccaf0fd8fb7281cbdf0d24fe827271f704d320c3a27	113680	320121	€0,000056685	
	0x780b5a38ade21548f73333d8aca1456436edb359dfa72d50bf349cbad5a78853	113680	349782	€0,000061937	
	0xe92a9d4cd1c12f662cb977426829aace936428061b07b50063b3765b07d4274b	113680	324252	€0,000057416	Transactions for the storage of the hashed elements. 2nd action of the authorities (each of them: one transaction per authority)
	0xd36c3c112130a5393b7c9b526e5956eb27dd0e45d519fef19e2bb8aad06a5a7a	113680	331043	€0,000058619	
	Average	113680	331299,5	€0,000058664	
2023-02-08	0xec598f1e45ed620b676c599428fc250e02234a8d28f12794a1f12e81e2ffe62d	159693	293984	€0,000073127	
	0xe03465d17f8fd4fbadcd33667a5c1dda8f161359d39ec8747db95f9025b1ce37	159693	339352	€0,000084412	
	0x73049bc278616bbb14c4e80ccca6a4baeee18cc00dc7eba7ac9758f9027753a5	159693	495279	€0,000123198	Transactions for the storage of the elements. 3rd action of the authorities (each of them: one transaction per authority)
	0xf2e3bf251901c787c35e3d24afe35911c4933e48cbd1430e084d1cac926a302c	159693	585427	€0,000145622	
	Average	159693	428510,5	€0,000106590	
2023-02-08	0xd7e3d7fcf01d5d008a88312287cdf4af53701e57e8a8cd78b1e12a49252b3423	67731	600563	€0,000063360	
	0x9fc7a78a2885afba10776bea112840883dd1bfbdd8a27621cd76ae77230eff0b	67731	584853	€0,000061702	
	0xb69d6cbfc7cee423c1e743e7b858d64b1026e72b46b139c28e3c49bd8786143f	67731	610950	€0,000064456	Transactions for the storage of the public parameters. 4th action of the authorities (each of them: one transaction per authority)
	0xc4253d36db63133fbc6a3fbc840011be39af18040a1d01b0fac7a75a682e3757	67731	709992	€0,000074905	
	Average	67731	626589,5	€0,000066106	
2023-02-08	0xab7410f6a99effcd92f5f864017230211dd254444a0478dc974291d9e90c8203	67688	3107701	€0,000327656	
	0x5b8de5f2f1d965331a33f338f24cee777b64dd4c0f2a25c385ef245935dd24a6	67688	7299447	€0,000769607	

Date	Transaction hash	gasUsed (unit)	gasPrice (wei)	cost €	Description			
	0x21f505ab4c677985b73b251db0f68755ee06a4cb717f2521b7cbd9f4e09f5b28	67688	7085076	€0,000747005	Transactions for the storage of the public keys. 5th action of the			
	0xfbe8c28f9ecc3ca7e35ae25ee1af6cbfcd1410050692ba935cae73e2ee202415	67688	6806273	€0,000717609	authorities (each of them: one			
	Average	67688	6074624,25	€0,000640469	transaction per authority)			
2023-02-08	0x9c7f8645254b90207a6a9aa7f2d03540e21e896aac5452f4c2cbe71626c013b6	89772	6796510	€0,000950373				
	0x4b3ced573086ea56da3296084da0e02341b67915fc0ae018c08ae16cd4eb7044	89772	6421451	€0,000897927				
	0x5073d390c969d4209cf7c9d6cdb3012b47b1a55c337d5b5e24ee242010032b73	89772	6120208	€0,000855804				
	0xc2602847b3af82c6a6e5913ab1586627d32bf19f8013424929b951e87fc2e9d9	89772	5648576	€0,000789854	Transactions for the storage of			
	0x192f87f9a419a13ac8e83f31419d287ff1a33606c1ba7f6232a3cdef76a015e6	89772	4769735	€0,000666964	the IPFS link. Action 2.4 of the			
	Average	89772	5951296	€0,000832184	MARTSIA approach			
2023-02-08	0x9dad5ce7c9e1bac01788eea97195152a5f4ebc9c92b7ca24f2a0bbc1d9334cfa	21832	5261456	€0,000178923	Transactions for passing the key.			
	0x95c3af937fef2007a7cdac68d5a2dd2ba2b7de6d85dd35082648c82a3c745640	22056	5148523	€0,000176879	Pair of transactions: key request,			
	Average	21944	5204989,5	€0,000177911	key on block. 1st auth			
2023-02-08	0xed4ac227993cc8aac54d42ce23f182d6a855ac68dc0c6795bf5e7eefbb8e97c2	21832	5141340	€0,000174838	Transactions for passing the key.			
	0x9261ad9527db2fc9bce7f2e6b15a8e8ae8f3d8aba3f97559446b3fa0614a2766	22056	5100991	€0,000175246	Pair of transactions: key request,			
	Average	21944	5121165,5	€0,000175046	key on block. 2nd auth			
2023-02-08	0x80b86eb7d0d5d09f5b87fee3a117396b38109c3d32b36c65766d17c3f879c839	21832	4876282	€0,000165825	Transactions for passing the key.			
	0x7b059901af38d2942a5a36390e33a6fb52f9db2e7560dca96e05b12eeddcb6ee	22056	5413451	€0,000185981	Pair of transactions: key request,			
	Average	21944	5144866,5	€0,000175856	key on block. 3rd auth			
2023-02-08	0x61daad6f47f5a3e764421d8643550b4d27e0669fc867808fc9eb7774101a5751	21832	5195272	€0,000176672	Transactions for passing the key.			
	0x468356651031678990bb72001688ac02d76955df3c85a2cb76b77042d5d2ea9a	22056	6106598	€0,000209794	Pair of transactions: key request,			
	Average	21944	5650935	€0,000193154	key on block. 4th auth			

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Date	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address			Final cost ETH	Final cost €
2023-02-09	0xf2a401d19eb379f26151a5a5c1c31f25f07ee51693c887509e64349cd432037e	1692477	9429644	0xA6A3088c6c628Ed7f8FF436264FD3522aFa31A85			€ 0,0000159594555588188	€ 0,02425964925049280000

Date	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)			Final cost ETH	Final cost €
2023-02-09	0x0937c1032eab1f1a074dbf0560f06e43340ad2163e2650a1379055cb39b80841	1692477	12857676	0x79014FB8bb338B140F11f750Bc2c7136B4AEE8b3			€ 0,000002176132090345 2	€ 0,03307894867891930000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description	ETH/EUR 09 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-09	0x0d48b06212aaf4753c8504025aa43ed189bb7e667a5de93278d8c325766731e87	67153	7014968	€0,000716073	Transactions for storing public	€1.520,08
	0x47fcc69adcb9bf680ff687464c3a36fb1b1a9243b9821443d414b2441aa7ec98	67153	6729434	€0,000686927	key readers (actors). One for	
	0x270d95c9aabbca4b429372926b7b9a255e3a3ee6db8030db0088984c759e1ba0	67153	6293371	€0,000642414	each of the users (manufacturer, supplier1, supplier2)	
	Average	67153	6679257,667	€0,000681805	key_on_block	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description
2023-02-09	0xdab7831f1acd8b17d944e420554762eff3df2f44e725fd0aa9b884c4ae1ec3aa	67153	12620077	€0,001288231	
	0x6e93317b88a551bcf0bd3ad991600fb4cd3899457 5e082595d212d700705aa10	67153	12804111	€0,001307017	Transactions for storing public
	0x3966d2c304ed0bfb0b25fa8d76d5290843d2e7d6b098c5bbda7529889727 91f7	67153	12541954	€0,001280257	key readers (actors). One for
	Average	67153	12655380,67	€0,001291835	each of the users (manufacturer, supplier1, supplier2) main
2023-02-09	0x9b7a091bc6e08071a841215f1ba9ff8fea4fb4c654f4b7c9f186b9f1e947e52a	67533	7400859	€0,000759739	
	0x1384723ceeee2807dcfea0044a88bb0bae83efc0652d65a89ed5bb0bb2c66b70	67533	5843007	€0,000599817	
	0x54df645f7c109aeef185d378277e71ff6674cecd6bdeed1fd0017a93c0b47450	67533	5937453	€0,000609513	
	0xce8976f51bdd75c0d53a45b9807c785a0befebc4ff93a3bac056db013b2f80e2	67533	6101947	€0,000626399	Transactions for the storage of
	0x21192f75fb76db1571f206283ac114c8f0da5868c43e3c046d3286c02bb9ddd0	67533	6210763	€0,000637569	the user's attributes. Action 1 of
	Average	67533	6298805,8	€0,000646607	the MARTSIA approach
2023-02-09	0x2dae85a6b5d461af345ca5a0f3112b16fd93ac0961 2cfcb11838403a05da046e	67755	4849807	€0,000499496	
	0x4a016bbfdf14c7abae26a089da47b8e82b38fac18b7538156fe21fcc5a20d382	67755	5025669	€0,000517609	
	0x7bb996e7f16291b163bb6499656140c20fac102d42230557123ea1d6c647bc0b	67755	4611835	€0,000474987	Transactions for the storage of
	0xc4bc039a0a766a715f71292aba621ae857673a2b06505db92069393a8cf9f050	67755	4413732	€0,000454584	the authorities' names. 1st action of the authorities (each of them:
	Average	67755	4725260,75	€0,000486669	one transaction per authority)
2023-02-09	0x0922c23b00e69dd44d2f8abbf396e587f4cf7e35ea5ca15071a5d2f3efc2c9086	113680	4088009	€0,000706419	
	0xcc84e74861eb59530348444b30247401051709fcd13f79f734438f75f891463b	113680	3853485	€0,000665893	
	0x995191ac5d18f130331cd74f746e0884a49bb98b99dcca48f53a5440a413d3d2	113680	3656522	€0,000631857	Transactions for the storage of
	0xe60a179e5f8d4e9996e3966fd5b395ff58a49cc3c5fea30f49a2607965fae404	113680	3465568	€0,000598859	the hashed elements. 2nd action of the authorities (each of them:
	Average	113680	3765896	€0,000650757	one transaction per authority)
2023-02-09	0x2bb973b05bdb713d4071b1b3db0bcbe02ea0e627cf557380c593f0699c3e5325	159693	3329038	€0,000808111	
	0x51dd56bca09d7ee5e06cd8bc1aef638eb94fa025111b44418fb385fa7b0bf7	159693	3297104	€0,000800359	
	0x53149a66c256f96dc963872d373d254e5ffaddcfbf340db4bf891e978939096f	159693	3213799	€0,000780137	Transactions for the storage of
	0x169eb2a0cf7ee48019b3a8c0edf4bbb4d861590fa51759234b6be1203493e448	159693	3151294	€0,000764964	the elements. 3rd action of the authorities (each of them: one
	Average	159693	3247808,75	€0,000788393	transaction per authority)
2023-02-09	0x1203eead21d58cfea238d13c6409d10aea7e02fb8dd30ed4ee6a7be101d47378	67731	3000701	€0,000308942	
	0xc3ee41c3fcce612c9667e6e4579d6204df4d12adc29cdb56c7b8441784a81790	67731	2975801	€0,000306378	
	0xc1290794cc757fd4214dc5301dbffa5a260d7af725bbb3d747adeac115633725	67731	2928551	€0,000301513	Transactions for the storage of
	0x9b849ba789c98c35c4f07ab7628424e5637164e18d3398fea333b5bd34161e0a	67731	2853365	€0,000293773	the public parameters. 4th action of the authorities (each of them:
	Average	67731	2939604,5	€0,000302652	one transaction per authority)
2023-02-09	0x6c06da2ea005a66d35607b82e4e3441cfbdfa6aec4567e5cf493ad2760379e33	67688	2832486	€0,000291438	
	0xa0e7e42325a700f0f7f014cd1a659722e70ac2dd8564a8920553a905ceb07ec9	67688	2836434	€0,000291844	
	0x47446f3358f1982fc02bf89f3034029ef8a90eb224f2b5b0a47ecc755e9706a5	67688	2841758	€0,000292392	Transactions for the storage of
	0xd60ad9a80ad2058094cea974f66f7e5fef530031aac91cf03fc3088e3b881c26	67688	2823872	€0,000290552	the public keys. 5th action of the authorities (each of them:
	Average	67688	2833637,5	€0,000291556	transaction per authority)
2023-02-09	0x2ec9ab4d12ec1e114d577e879883d1c81f29b305d2832e72a1fa03905890d505	89772	2785651	€0,000380132	
	0xd60addc171992a8e5285fbac10023621a40cdb276062d59a1ebeddef36ccae11	89772	2770875	€0,000378115	
	0xe6e493365077f1f41fb953e538b53c3514ee3396a03cf6c869e0f5b68caab7e05	89772	2747285	€0,000374896	
	0x3476a2742647d3e399d388ef97604092e98f3e20e7913b340623ee5f0f10be2e	89772	2747598	€0,000374939	Transactions for the storage of
	0x38083e24bbc0d054e0302b4e63a5810c6eb8dd3dc98575de3f23b708e98b95b8	89772	2745109	€0,000374599	the IPFS link. Action 2.4 of the
	Average	89772	2759303,6	€0,000376536	MARTSIA approach
2023-02-09	0x0cdc435d43608fea0804e355773774fd68cf52db1af51437af5903f2e71f4b5e9	21848	2699577	€0,000089655	Transactions for passing the key.
	0xddf56753677c095e9116237977c3061ececaccf40a9b2a91e4517c7640ba0969	22072	2694186	€0,000090393	Pair of transactions: key request,
	Average	21960	2696881,5	€0,000090024	key on block. 1st auth
2023-02-09	0x9065bcec95a6653f0c55c5744de29114e433a08d99004cb24c132fe87554faf	21848	2691247	€0,000089378	Transactions for passing the key.
	0x998359c0ce2c048c77006ec9a21b2e06d3f3afcff3180334fbcb3cf0388ddd89	22072	2678781	€0,000089876	Pair of transactions: key request,

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description
	Average	21960	2685014	€0,000089628	Pair of transactions: key request, key on block. 2nd auth
2023-02-09	0x3dad293895deac2a0a63008bedb2d1bdf0dbab8e8936d69eaf1b87e408f58854	21848	2678903	€0,0000088968	
	0xeaa04879f504b8ac022441cbf2d23bd2aee6df1c2ba26abe5e602121098a426f	22072	2669595	€0,000089568	Transactions for passing the key. Pair of transactions: key request,
	Average	21960	2674249	€0,000089269	key on block. 3rd auth
2023-02-09	0x90495361967ccaeb8b5c33cc0a9e8088c6f1fb8451aa84c49272c1d80f7451a1	21848	2671701	€0,000088729	
	0xe8ad68234bcf96cd74a81b2efd6d32054874370fdea67c61bf53b73b15200ed0	22072	2668411	€0,000089528	Transactions for passing the key. Pair of transactions: key request,
	Average	21960	2670056	€0,000089129	key on block. 4th auth

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2023-02-10	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address		Final cost ETH	Final cost €
	0xbfa657d0bd8e916bc3e940c57342ad5fd5f9d2eb4ee9061f13ebb26d66281e56	1692477	5267055	0xA501Bcac8026310896295263CB0751381667A899		€ 0,000008914369445235	€ 0,01288411644658710000

2023-02-10	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)		Final cost ETH	Final cost €
	0x7c3945fbae4684f532f858c860252554c9e3d8d11e98fecf21be4597bd2dd8ac	1692477	5267731	0x34E15cfAe586546aE3edeF536C7dd2C62D80c318		€ 0,000008915513559687	€ 0,01288577005808680000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		ETH/EUR 10 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-10	0xa87d55d01362d21094661ad8d28f4d6c3e8319ca358adbf730f10d7b6e8fe43e	67153	5266825	€0,000511185	Transactions for storing public	€1.445,32
	0x9d6cc7963f28b2cc301f8a309dc6a4c219159a36f798b1b30d2376609dbff60	67153	5266820	€0,000511185	key readers (actors). One for	
	0xe25db1a943c0bf992cdb55613c54fa099283a2f1762579f39ce9d0698bee227f	67153	5266673	€0,000511171	each of the users (manufacturer, supplier1, supplier2)	
	Average	67153	5266772,667	€0,000511180	key_on_block	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description
2023-02-10	0x2caa6ffe4f655ee47574ae55b3700a678d43a7f7ea9895208e96cae2ee964703	67153	5266825	€0,000511185	Transactions for storing public
	0x005a19a9f93e0aaf86e5a1fb2bbeec527b06631b37ca78f2471d24feba73ef45	67153	5266822	€0,000511185	key readers (actors). One for
	0xce60b7477ae341bd1b6305585c647643e537f50817dedbb8e63a8dfed084d166	67153	5267038	€0,000511206	each of the users (manufacturer,
	Average	67153	5266895	€0,000511192	supplier1, supplier2) main
2023-02-10	0x58d6c762dcd933987c5eb7bd0b817525f46df84f459c0df59372973d16267146	67533	5266529	€0,000514049	
	0xc12f3b8ae12feaf478305b80cfb30a3e0f909143c604a9eb0e4981ff07a5dbd4	67533	5266504	€0,000514047	
	0xa06d72578af46de7c1e0dadebbb3c2be9b23ef8bd422e87f422accc551ade9bf	67533	5266432	€0,000514040	
	0xc67cb7e1a2dd0bf105e46aa58a7a003a47001d4c6520305569e2de2c43717d93	67533	5266477	€0,000514044	
	0x65bd00c2d42a1b763f5790bede953a7f014ef9d3051a95408d82eaa625a4cbab	67533	5266462	€0,000514042	Transactions for the storage of
	Average	67533	5266480,8	€0,000514044	the user's attributes. Action 1 of the MARTSIA approach
2023-02-10	0xf8b263628ee47a801a4498641080e794e2a9a7e135271f00c714819737171b9a	67755	5266403	€0,000515727	
	0x1b6bad621630bc3a0822c4d7c60a7a53440b92fdd0e59db5e5d1bf3ef3d7cf31	67755	5266457	€0,000515732	
	0x334e890f4da670447d497cad4eb71830674a09b86773f2c4febcdc1a7cc39187	67755	5266445	€0,000515731	Transactions for the storage of
	0x782183b8d168910c8b9f493e5b60ed2650136c045462a5529649e3fce8bca0c9	67755	5266405	€0,000515727	the authorities' names. 1st action
	Average	67755	5266427,5	€0,000515729	of the authorities (each of them: one transaction per authority)
2023-02-10	0xf93e280a044913846aa568ee0c1d87c8ae47bc99cab773b5e957126aa2c9f0f3	113680	5266318	€0,000865277	
	0x74ccb1b518641f7cb67de4dc3d9f3745d9f0649c1ae9d4fadd7e56d32d970944	113680	5266330	€0,000865279	
	0xdfa025807f554286e7faba3d50d4816d16d53acabdd9e0bcaf6bdf0377efeed6	113680	5266297	€0,000865274	Transactions for the storage of
	0x732d0a0b443340bdd28166c1cf5d46ef48717ba16f4363ebc2e6d5cb7b547caa	113680	5266301	€0,000865274	the hashed elements. 2nd action
	Average	113680	5266311,5	€0,000865276	of the authorities (each of them: one transaction per authority)
2023-02-10	0xace9b3e0bff60b5e33ca040b918c4e7cf943b88df9b22d0b2327d35a20893d64	159693	5266286	€0,001215498	
	0x1b1f25305a75c0e8d05f1d1450fff9a61e0d0b82c7dd80bbe2b5021b7971e1df	159693	5266288	€0,001215498	
	0xa4145a56c2a0453ea50f295cd16fbc1398ee187a55b8e6e128612a4788f5927c	159693	5266310	€0,001215504	Transactions for the storage of
	0xcf7b9ede7ede41507b54b0da1bb738d2c8161316e88f367a5de1de68e5769e3e	159693	5266336	€0,001215510	the elements. 3rd action of the
	Average	159693	5266305	€0,001215503	authorities (each of them: one transaction per authority)
2023-02-10	0x698a724e07eac98f57dae51832ba370e1bda67a56e46b1ef0aaa15a0c1516b7e	67731	5266320	€0,000515536	
	0x47cfa208f1340201ac9a3f763fc45313fab6b127d31a294b48515b09abeed77c	67731	5266341	€0,000515538	
	0x09434873cf8f82558a4e506d73fb348146580a205d96363468c9688bf7122576	67731	5266331	€0,000515537	Transactions for the storage of
	0x6be8ff6313429b17e5a6293cf898ecf7244474c5f4efd4a9e6cb710e4cb24cb55	67731	5266366	€0,000515540	the public parameters. 4th action
	Average	67731	5266339,5	€0,000515536	of the authorities (each of them: one transaction per authority)
2023-02-10	0xd34268001c30172283f5d5143e97c0e95947516665 0938a013a01a7b30f2c15f	67688	5266335	€0,000515210	
	0x48f26d258bdbf092c7fd361551f777d57844e640f99686910676 2d55d95a4d0b	67688	5266437	€0,000515220	
	0x1179b375101ee417928e2d37031a66dafa4562147b98e2efd0b29aa4c237bd63	67688	5266498	€0,000515226	Transactions for the storage of
	0x71d9a57927a6ab4e464b2b2e1e04aed239e3b2ad37bbca4fced4666b6f3f8d19	67688	5266564	€0,000515232	the public keys. 5th action of the
	Average	67688	5266458,5	€0,000515222	authorities (each of them: one transaction per authority)
2023-02-10	0x4d6f5846e792397ed2b134e227550cf39967350aee993182f1ceed0f8a618f96	89772	5266682	€0,000683348	
	0xa521c12f28badc19fb516edef1a322a970adb29a7bc1a26699047125b3bc634d	89772	5266800	€0,000683363	
	0x4e020c9799ab075666a6cac9c81768bd3ade3b1a20b8ca6f6f10838580233589	89772	5266717	€0,000683356	
	0x994f24da3167ff21d7a182a2e4877bb14f70105a31b7799ba20c4691dada9988	89772	5266647	€0,000683344	
	0x98b11bb577c41145ac606053fa300be30740717488d93806d0dcfd66046bc020	89772	5266565	€0,000683333	Transactions for the storage of
	Average	89772	5266682,2	€0,000683348	the IPFS link. Action 2.4 of the MARTSIA approach
2023-02-10	0xa4c552c78c73179eb460aa82b7ad6da8001c1f9e21b13d29dfb3aa5dbc58afae	21832	5266581	€0,000166183	
	0xe7c6bd2286127656c5238d854b24ea4e969fb7efda6d0a3887c020bf526030d2	22056	5266520	€0,000167886	Transactions for passing the key. Pair of transactions: key request,
	Average	21944	5266550,5	€0,000167034	key on block. 1st auth
2023-02-10	0xd92d099cbc4b2ea1408edff70050a318cd8b86907d505d9794cc32109ff710b1	21832	5266534	€0,000166181	
	0xdf763b5b00d296303b949a190cfa275eefd0500bc0c8d101708669c17072642f	22056	5266583	€0,000167888	Transactions for passing the key. Pair of transactions: key request,
	Average	21944	5266558,5	€0,000167035	key on block. 2nd auth
2023-02-10	0xac3b026cca9cadccdcbdd04d933c731590fc4884f838fdd428c8bdb239ed9079	21832	5266618	€0,000166184	
	0xa2fb2b96ffe2cc853cf1fd81d5f2cf2ca3a0b144a16b83fb06453b234748e1e8	22056	5266643	€0,000167890	Transactions for passing the key. Pair of transactions: key request,
	Average	21944	5266630,5	€0,000167037	key on block. 3rd auth
2023-02-10	0x088c2e806284775eae6c4ec444fade5fae0d6013efb459b210442702458bf801	21832	5266650	€0,000166185	
	0x4d5178b1dc3a9e4184e3d5bdfc964bd4be79e247c834fc08af71b86f6ec6ef08	22056	5266610	€0,000167889	Transactions for passing the key. Pair of transactions: key request,
	Average	21944	5266630	€0,000167037	key on block. 4th auth

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2023-02-11	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address		Final cost ETH	Final cost €
	0x0864a44a0b65d744c8a5baf201e7b072650b9ebb80dfe26403adfb979d5221de	1692477	99997445	0xD5B03A986442f93f44C54826874D04A4685a055		€ 0,000169243375721265	€ 0,24093486967679300000

2023-02-11	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)		Final cost ETH	Final cost €
	0xee87326db9dcbb4d413df294c74e1f2a12116c56845eedb222dada0edcede492	1692477	99997447	0x7DF351501a4Fc9759347eF59A493881fdcfD396F		€ 0,000169243379106219	€ 0,24093487449561300000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		
						ETH/EUR 11 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-11	0x46c3500c41ab9bcc8bcb3dfa87f6f2f7fb6cee1356e1ef047ef6349d107af312	67153	99997445	€0,009559657	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) key_on_block	€1.423,60
	0x4cf6534ccd586c786ac178f9628f2d07a3d2b07fa76c9d1332a5f85bc78bc277	67153	99997445	€0,009559657		
	0xa2ca96d2ff75e705e14118158dd5bdf1fbc781219c7cfd980d47317672aaf409	67153	99997444	€0,009559657		
	Average	67153	99997444,67	€0,009559657		

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-11	0xdc451795110e20892e9593984bdca887f35afe37fde47082693ff615c807fcef	67153	99997447	€0,009559657	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main
	0xfe95a5e05adc68fd0281d2c77e5521494e8fa9e78b19476dfb0aa7319fd09a30	67153	99997447	€0,009559657	
	0xbcfa3e41d14f4727f5a46d6cf36838f5eaef47401d39bd6225d185650c6ce431	67153	99997446	€0,009559657	
	Average	67153	99997446,67	€0,009559657	

2023-02-11	0xd297b36dfbb414500f32784cf3ae6fb15d81fad20f9a0710260c85687743277e	67533	99997443	€0,009613752	Transactions for the storage of the user's attributes. Action 1 of the MARTSIA approach
	0xcab5fcbb9ccbeb6d12dabc46a305b0f34bf48c4e1da4ba7eb669959e62536470	67533	99997444	€0,009613752	
	0x262ff27dc6798039d0f13e138eb7b2999e93348cc73d2bce83b9a6d69d4ca64e	67533	99997445	€0,009613752	
	0x0d025ccd2c1890298a6557d707456c8df1fb9f049b90418f3253f249b1c2c1bd	67533	99997445	€0,009613752	
	0xae9263dc5635445961deb7bb72e821187ddb82d0a0c883be94a886f2247472eb	67533	99997445	€0,009613752	
	Average	67533	99997444,2	€0,009613752	

2023-02-11	0xe710e4f9c768e96865b1639c94292659bfd1034e8b6ac8833f118163224b1794	67755	99997445	€0,009645355	Transactions for the storage of the authorities' names. 1st action of the authorities (each of them: one transaction per authority)
	0x9b43c59984c61011c4320ad7cdb93d9b363796df81d3b4838f8f76769444df0c	67755	99997445	€0,009645355	
	0xd2a1def705dad7f194dc408ae1840f37b419af0df4677e9cc151aee3374d079e	67755	99997445	€0,009645355	
	0x7bce4b83fba42852348f130833eb13d80b2286a33b236a10c66b4db0e2cfd220	67755	99997445	€0,009645355	
	Average	67755	99997445	€0,009645355	

2023-02-11	0x305478ffada89cb34391c01091d2d77d2366db8b38e3e26fd96c32a2bf963c48	113680	99997444	€0,016183071	Transactions for the storage of the hashed elements. 2nd action of the authorities (each of them: one transaction per authority)
	0xb6c3cdfd88de04e68da663fdd20250057e8f46f623c3f09f7383da18c27bfc5a	113680	99997443	€0,016183071	
	0x906103b93cae6d19373ecba133d1935f278e6404ade807ca3cc78fb7e56ffa49	113680	99997444	€0,016183071	
	0x269c005d82c640534b1a9c6ab58e4ade6b9b5df9c87dc8a7e1d4805d59413012	113680	99997444	€0,016183071	
	Average	113680	99997443,75	€0,016183071	

2023-02-11	0x6e8c52f2328b42d9fdb97e89bf00535f04e14a05139f8912310af958859adfff	159693	99997444	€0,022733314	Transactions for the storage of the elements. 3rd action of the authorities (each of them: one transaction per authority)
	0x5596da4234eb0c69daa40c546d5159963780825d265fd65416f29e26ed601fa2	159693	99997443	€0,022733314	
	0xaba47dcbfa996d6a9bfe68c325e67c592dc272c84e97c59e65911b1465121271	159693	99997443	€0,022733314	
	0x1ed158982bb4bc1ff01ce2a73e63d1c10d836a67354c5905a4e61eac8a032f98	159693	99997443	€0,022733314	
	Average	159693	99997443,25	€0,022733314	

2023-02-11	0x1a415f8489baa6ebc878f9ee5bb9687ba032edb8d7e98c6208ffdd2db356a0e5	67731	99997444	€0,009641939	Transactions for the storage of the public parameters. 4th action of the authorities (each of them: one transaction per authority)
	0xf801d393d2dd6afb0b0af22f85b24ef3caa02997d79a7d98b4eae445917033a3	67731	99997444	€0,009641939	
	0x8a8c7ab4b268094be73b05702c000752fbc6ddbe4a4f251fe4271c6f1a3fd830	67731	99997445	€0,009641939	
	0x1099798368bc45f3681bd7c83f865961719f0108a2d8c8ebc18d628ffc1ef5cd	67731	99997445	€0,009641939	
	Average	67731	99997444,5	€0,009641939	

2023-02-11	0xac0968c07a630112a3bb83c5cd0bb228eea01427b28cee2ad2dd7dec01f1b70d	67688	99997446	€0,009635818	Transactions for the storage of the public keys. 5th action of the authorities (each of them: one transaction per authority)
	0x28b6e35e37fe309fb27679d79b8bae28dc3362beebeacd46484c4c7b80b8a731	67688	99997446	€0,009635818	
	0x696447b577f10496020985b9fa46aa5903a5e7249e70226b86c264beaf899081	67688	99997446	€0,009635818	
	0x4829cb8b58473a24d6ad78cd281f70b983b5f7f7472eafeb85745ab5c989338b	67688	99997445	€0,009635817	
	Average	67688	99997445,75	€0,009635818	

2023-02-11	0x8c6f3fd60943eaad050b40808c48482771e7c3c76d878814c8a032a846780c1c	89772	99997444	€0,012779615	Transactions for the storage of the IPFS link. Action 2.4 of the MARTSIA approach
	0xe620f6fb67e82235192b6c0e58fe189eab5854292a88879d8453eb648401b4bf	89772	99997444	€0,012779615	
	0x94c4cc3651d84a5a9f7a4b7241d65420acef8e88ab47cc3b6070d50ab5ed7f0	89772	99997446	€0,012779615	
	0x1975a4817c98ecdb44380307fb0655a388f46154b9562e15a2953acf40be5ef	89772	99997446	€0,012779615	
	0x870b5286b929667d8d20ced0f1bf1806c62e4288b3d851ef14467b945cde3f32	89772	99997445	€0,012779615	
	Average	89772	99997444,8	€0,012779615	

2023-02-11	0xb3f825e7a2ebc471943536e3308c984a4b93d94cb6d27e4ae882ad706c51cc1d	21832	99997445	€0,003107924	Transactions for passing the key. Pair of transactions: key request, key on block. 1st auth
	0x05077b838957b6a111a0c82b655db7c33c4f3205552a1a86b89b2c378ce55aa5	22056	99997445	€0,003139812	
	Average	21944	99997445	€0,003123868	

2023-02-11	0x82e4cab725b34d882aa93199802a20d318812ce674f622e08149c648eaf7f458	21832	99997444	€0,003107924	Transactions for passing the key. Pair of transactions: key request, key on block. 2nd auth
	0xc449b15de662db90d798565c3eaa7163ab9a647136f6f0f5fe55a587e72e7277	22056	99997444	€0,003139812	
	Average	21944	99997444	€0,003123868	

2023-02-11	0xa83618674edd6b8fa78264c1f0aa4253245839e79974dc93f8e649394cbfdb39	21832	99997443	€0,003107924	Transactions for passing the key. Pair of transactions: key request, key on block. 3rd auth
	0x0f188bda83501bf22c23570d581917ebeb26647ad4749f8ad7f951e4f362d6dd	22056	99997443	€0,003139812	
	Average	21944	99997443	€0,003123868	

2023-02-11	0xd321b34b3b0583b627102719b926aff88190be8a6370afbbf4cd5fc3f7f88ee95	21832	99997443	€0,003107924	Transactions for passing the key. Pair of transactions: key request, key on block. 4th auth
	0xf272d8d210e6040455cd3fad6d054e501ec5550c2d5f5a906c49aba7599c711d	22056	99997443	€0,003139812	
	Average	21944	99997443	€0,003123868	

2023-02-12	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address			Final cost ETH	Final cost €
	0x6948576fe48875aef566c5808fc3f95edc00a68d1547ce9b698934ee26978133	1692477	75476608	0x653C7A81F4cC09A38cbB82690cF5547124F918EB			€ 0,000127742423078016	€ 0,1844025748342700000

2023-02-12	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)			Final cost ETH	Final cost €
	0xbcccb44bf2784968797b1f173e6cf164dfaa4f97310a84378f98f00d710a79e6	1692477	76085131	0xDC41332B5FfB2390C959c808b91868E4553b569a			€ 0,000128772334259487	€ 0,1858893031202820000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		
						ETH/EUR 12 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-12	0xc41460ea58833a22e4fb1b0a49a9ae9745ceeed4dd9a4686f142695af9a23ece	67153	74887774	€0,007259524	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) key_on_block	€1.443,55
	0xc69c73ae862af0600b6ff4a6bf21f7622b61d5cce47b90c0743284b81e03db24	67153	74761493	€0,007247283		
	0xafc2a90a6f53711618158fdbc1afffea843060efbaa9127a5d1ea2718f3fec4a	67153	74785129	€0,007249574		
	Average	67153	74811465,33	€0,007252127		

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-12	0x5d79853ec067fa55531a0f95ff39569f05e8806fae1db935daaf6137f4f615af	67153	75746084	€0,007346084	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main
	0xdebbeb4bb52baaa4f307d3bf5133c7c521b9d449ac1178afa043c512631688d	67153	75530445	€0,007321824	
	0xe3b434bae34c9618f70d184a4b4ccfb32f3da993ee285c585ecce723001d50d2	67153	75573596	€0,007326007	
	Average	67153	75628248	€0,007331305	

2023-02-12	0x809ac9286307476bfe16172818805e4e8ef2a5842bc1c0187ed92ea9468754a01	67533	74756230	€0,007287780	Transactions for the storage of
	0x23e9fc0cca28c6087909e9e182680cf32033560ead6b7786f2ccd1fd0a2b9509	67533	74839102	€0,007295859	
	0x209fb315c0304c44cbe8de395f5dd5d81d3b2c507c171bab53e87e769459f19b	67533	74746947	€0,007286875	
	0x144bbf84b36c44b964385258e8183fc7c90e58c5b058f5131b89d1b157055a6b	67533	74466859	€0,007259570	

Date	Transaction hash	gasUsed	value	cost	Description
	0x5742091db77c498e5c06fd321c9c9f1856f01c8017810cdb942b994078cb61d8	67533	74438985	€0,007256853	Transactions for the storage of the user's attributes. Action 1 of the MARTSIA approach
	Average	67533	74649624,6	€0,007277388	
2023-02-12	0x960d9ba42ba6a58e05cd5a1b6e15ab2fd5b819ca3a67012523f6d49a2fcf8794	67755	74147205	€0,007252170	
	0x282c55ed6d3303bf099fa2da45401642f9ebc37a6e16e8568c2e54af8cf692c1	67755	74064722	€0,007244102	
	0x388c737ee9844250c385fd112d60dda88ca4732bfbddc2817c16ca2820dd6b1c	67755	73994494	€0,007237234	Transactions for the storage of the authorities' names. 1st action of the authorities (each of them: one transaction per authority)
	0xac67c79cd1941c49c7b1f761902b88eb48aab7184d72646bf38db00416bce185	67755	74086836	€0,007246265	
	Average	67755	74073314,25	€0,007244943	
2023-02-12	0x511a48c00f9954205a24faec21ea1fb817f3252dc8676b75811d1959dc3f8f89	113680	74389831	€0,012207577	
	0x73790dd05e263f4ae0391db6403666625871b487c12763e570be2eb9d683a665	113680	74280763	€0,012189679	
	0x285ac7f56482603a34c21bc94c9beeb1e8065860fcbce78508994ee9e033a37	113680	74157267	€0,012169412	Transactions for the storage of the hashed elements. 2nd action of the authorities (each of them: one transaction per authority)
	0x7a0d132db81d4bb626dfe669845d97c8928485271128115d0eae4f683a2d5dfd	113680	74041213	€0,012150368	
	Average	113680	74217268,5	€0,012179259	
2023-02-12	0x9da4062a53325cfadd01fb51a42f91a15bb6713a7d3b6a27e6d5921260d8cd41	159693	74047431	€0,017069771	
	0xe9d94b68da55e68e58ec749c8bfd029ccd491600eaf2039e9cf3efa6aecfabbe	159693	73969447	€0,017051794	
	0x31dc7a1e1a09974c1be0304cbfeac437dea9ed7bf1727bbba7730d0435fe73b0	159693	73883721	€0,017032032	Transactions for the storage of the elements. 3rd action of the authorities (each of them: one transaction per authority)
	0xe941a779983884cd295fcc04b5c56c0f7e78a6ffdbecb39688b7fc001e12f96b	159693	73786341	€0,017009584	
	Average	159693	73921735	€0,017040795	
2023-02-12	0xb5e0bd0b138ea4ada4617195f50e1e9fe154e44494694f46828ad0f1b5d19530	67731	73665815	€0,007202534	
	0x308cf72d5fd0a6b656f8a3af6259acdf7d310d54d8d50052de844b86bf6a2218	67731	73649941	€0,007200982	
	0x52adff53b436be3d890f2df13b4e8193bb7cf19563d29e39641868df8452391f	67731	73571978	€0,007193359	Transactions for the storage of the public parameters. 4th action of the authorities (each of them: one transaction per authority)
	0xd2d287bc81a62ae8253f1151565cd052d48e6a53d1ee7c5b8594023293e9d729	67731	73546319	€0,007190851	
	Average	67731	73608513,25	€0,007196931	
2023-02-12	0xb6a75ba0060c3a61f470c51ed946b4f9d7027a5d66f8d291a9fd92ba52799396	67688	73531407	€0,007184828	
	0x1d8d1782f03f6cf12f5ae8133aa90ada92eceb7689726b033387ff0ad5245a0e	67688	73517228	€0,007183443	
	0xa643f0abdf783efff5d53d2eee59c2191bde0d881237715553ef324a06c39707	67688	73556537	€0,007187284	Transactions for the storage of the public keys. 5th action of the authorities (each of them: one transaction per authority)
	0xddac179f23cb747d3b7a5500e7c0e0bf8c69955fe8966d09a91708a5879b9736	67688	73565968	€0,007188205	
	Average	67688	73542785	€0,007185940	
2023-02-12	0xb53ffc4bee7381d1a426ad18c895aef2f221ba5b88c4b0426c3f61d3725a9c9c	89772	73544433	€0,009530650	
	0xf4ef56084e26b3d05df83a6bb3c73c1301cfa58e718e4ac7ebbb06ecc6e19b62	89772	73516346	€0,009527011	
	0x956bf886f7d0bf51142cccf74858b1ab4e05f6c5f05fa3c06beb3ce5713c26d6	89772	73472790	€0,009521366	
	0xc648b4f7a5c197f71efc0ea62cee44b399a1d920054cd3c8d1e6722520bef32c4	89772	73449894	€0,009518399	
	0x958f295e7ba5d455f65c5f494a139e490a3b99d6bb54f29e9a17b2f822eb2618	89772	73444947	€0,009517758	Transactions for the storage of the IPFS link. Action 2.4 of the MARTSIA approach
	Average	89772	73485682	€0,009523037	
2023-02-12	0x4b1f1d4235bce6d616e6c86d8840cee613a1d2c8feefc9cf992b1937b00674871	21832	73390047	€0,002312930	Transactions for passing the key. Pair of transactions: key request, key on block. 1st auth
	0x29c9e2e3b9055ae3a08bd0a6896900f2c18d11a7fe340dc0917565f0e1069239	22056	73381258	€0,002336381	
	Average	21944	73385652,5	€0,002324656	
2023-02-12	0x0fdfd8f88a07f7283d924d75cd87505569bc835d76cae4259b10e2355bebfc94	21832	73356848	€0,002311884	Transactions for passing the key. Pair of transactions: key request, key on block. 2nd auth
	0x4dd0e0f16ebfb9698cda6b19d8c71799f251782fa8f75dff279f47c727c591d8	22056	73341107	€0,002335103	
	Average	21944	73348977,5	€0,002323495	
2023-02-12	0xdd7aa43a3f74ec34c1521fc7b06beff31071ed704e6daa985db3f5535d6fa8b3	21832	73355656	€0,002311846	Transactions for passing the key. Pair of transactions: key request, key on block. 3rd auth
	0x10d62319a17da0ce1c04c2786190aaca4618598f635d0ab42c586a54e8fbcc22	22056	73337712	€0,002334995	
	Average	21944	73346684	€0,002323422	
2023-02-12	0xd8af00280c0d51c803528425d681cec6c370e7650a920f3c8598def30d2910c2	21832	73327549	€0,002310961	Transactions for passing the key. Pair of transactions: key request, key on block. 4th auth
	0x060b6a6e5298efbc97d070c41304d8015508d119a33cba8c702297d9f5738f88	22056	73319410	€0,002334412	
	Average	21944	73323479,5	€0,002322687	

2023-02-13	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address		Final cost ETH	Final cost €
	0x12f3d3f22073fd38c627420e57ddaaf234cc990f0a64b965fa86c5b994242942	1692477	2565457520	0xf7dB53111f8EDE819795F8c1EfabfAd23bb48C80		€ 0,004341977847077040	€ 6,1894025814513800000000

2023-02-13	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)		Final cost ETH	Final cost €
	0x861657e5f0e68271daa14a475ac9b2275b3021cd8250ec56a19a023c82722574	1692477	1395546407	0xD36628479ce8B4f5F51742076507B78CCFa276B2		€ 0,002361930196280130	€ 3,3668842561934000000000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		
				ETH/EUR 13 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)		
2023-02-13	0xe82f844e2f102dc25964b9ba1468cf430dde83ac703e9b6b993b30e7f7aca348	67153	2798252058	€0,267863401	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) key_on_block	€ 1.425,48
	0x9bc298f2eba68f55263fb927d2d2534aa666b68b5cf866ab544630bddc5ef056	67153	2766341772	€0,264808781		
	0xce105856dceb6d0f99bbc4ee9f9b281763603a210671dd4c676a85ba3fde8bc5	67153	4711525947	€0,451012039		
	Average	67153	3425373259	€0,327894740		

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		
2023-02-13	0xc0dd32c1b381dcf02b82d1d953ee202f5df41ea1e3a15790bc8d5e3610284b7f	67153	1686061917	€0,161398713	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main	
	0x7c577d8d5e89a96ffa34c2e620954ea13d99d482191bf64a867a6bb5859e6903	67153	2189935699	€0,209632161		
	0xe6e65af9b8bc381c9330c9c58dc5521c407196e229ffe5dffc60f25fd5dc92b9	67153	2035618436	€0,194860101		
	Average	67153	1970538864	€0,188630325		
2023-02-13	0xbb8f0c62e048d46a499d84fc07460b05ed90defad24d4c3e4f0de7af4966b2da	67533	4692324330	€0,451715709		
	0xdd6305bcbf595a7035fb671bc2696cd4c250ceb8d245a58f91038cd2be03d31	67533	4820916882	€0,464094920		
	0x7e1970230403a553c2754b0eaeae40ce326cfaa34588c779d49e72793ed85305	67533	4557688445	€0,438754724		
	0xe5b4c987fdfe89245b2e9239d476b50aee3ea049624a01bc5e1e02eeb68b2103	67533	8725947271	€0,840020250		
	0xa8f324840902cab8640cb6a8d3298507b996d31a63ed7e92e43ef08bf7699d33	67533	8943830625	€0,860995214	Transactions for the storage of the user's attributes. Action 1 of the MARTSIA approach	
	Average	67533	6348141511	€0,611116163		
2023-02-13	0x2a9efb1ce87e33a8f0b560335e62ebc08afaf7662d5fbb81a2a5faa61ce5e444	67755	8736344951	€0,843785876		
	0x628dc4b40cc5dda07a880bdce5a5d8fb97e28a3e7e38d23a1510e7cdf49d8881	67755	8380178617	€0,809386122		
	0x788175100107f0ff4953c3cc4eedfe8db1208e63b004d9cd9c8d4fee3fdfb21e	67755	12291028824	€1,187109321	Transactions for the storage of the authorities' names. 1st action of the authorities (each of them: one transaction per authority)	
	0x697942d040362c4991fc03502f73c70e8d6437c75ab89b2e6754e9cc1d375508	67755	12674416290	€1,224138185		
	Average	67755	10520492171	€1,016104876		
2023-02-13	0x35fa894fa10c9a84f9a1f1e31e18bf022487a2cab7883999675a23db9dc8ee41	113680	24131147520	€3,910417861		
	0x6dfdece3314a9dc3dc407dbe307496b8f74452c0c202e1b809732e52cb20e4cc	113680	27456040219	€4,449211957		
	0x28e55ae640ba6a8672cd16a6731034160e6e2b98d671bd56bb996fcdae266330	113680	28402828209	€4,602637593	Transactions for the storage of the hashed elements. 2nd action of the authorities (each of them: one transaction per authority)	
	0x6675fa1832b01b50d26122962e0289ff79ac140ba3f6195c1ff7f83c3fb75acd	113680	29219380546	€4,734958729		
	Average	113680	27302349124	€4,424306535		
2023-02-13	0x8ebded39a7dc3beba9f02abf4f1e28cd7341385df7ad5e2ea61e8ada96a169c8	159693	27352083844	€6,226405873		
	0xcc6513f6ed6a26dab58b4a39adf259b24b59fa28f1a2b4f62f75ed38df528258	159693	25650594536	€5,839080246		

Date	Transaction hash	gasUsed (unit)	gasPrice (wei)	cost €	Description
	0x5b05e88e10d036b85170bf1384eaf86886cbd8f75f6dbe54f3f43506122347b6	159693	23545232228	€5,359817302	Transactions for the storage of
	0x119d48382d5752ef866763cb1621d756d9ab57cc834b3406df312156abace833	159693	23922947566	€5,445800111	the elements. 3rd action of the authorities (each of them: one
	Average	159693	25117714544	€5,717775883	transaction per authority)
2023-02-13	0x02ad438c9e48864fba0688bdcedcdbf5f5f954ff3785ed80595cc009fb21b299	67731	22340990368	€2,157004432	
	0x614a0bf07d1b86ea12585bc58ff7350bbdf4b2279692664be80856413e6c2f81	67731	27469125762	€2,652121729	
	0x0ba02f39a7ba2abe0378c1f4dab07ce1f952959912d2881c71c9e443d4f0900	67731	30885116681	€2,981932871	Transactions for the storage of the public parameters. 4th action
	0x7355de2fe3280b6ee26568137635b77f659fe3b8d7d909bdd680c2438031cf5a	67731	39415114259	€3,805497193	of the authorities (each of them:
	Average	67731	30027586768	€2,899139056	one transaction per authority)
2023-02-13	0x58e4603b9feee028cf7761a917cd87d9cbf89f20f5135e4fac6a5ae40e9bf747	67688	40254773762	€3,884098192	
	0x8eeaa9a5fc8ea81de45d02831c3d63b0cb7235f2990bd0a6b24c75759d87ebab	67688	47893224051	€4,621116145	
	0xeb11222a4a0929345827a42136cb9df58eb274cc97f9caf8ff06b4955a2016ea	67688	42040537940	€4,056402810	Transactions for the storage of the public keys. 5th action of the
	0x8b79002fad73439889cc31beb1d5aa7e038e01db1e8abb52f5a4bede61244288	67688	42588138723	€4,109239655	authorities (each of them: one
	Average	67688	43194168619	€4,167714201	transaction per authority)
2023-02-13	0xf942ffd938337dc34297f7af25d5d3a0a705cfade1427b32e3caf3057dfe5b9b	89772	71557451398	€9,157077576	
	0x52461e74c7d12b7a370b1abf8c80dd9060f45b7a7e4a088233f7a5e0bca2f23b	89772	70561392007	€9,029613659	
	0xbd61bc3b66094d0535b574bd92f9dfa491e560a783d944cd9d2f00c523424095	89772	60597412864	€7,754541277	
	0x05ab4b3d7cec3139347471c036770fddd504025e3ff273f747f12644058516782	89772	67263499366	€8,607588305	
	0x18644d7647b24620eb2bcd4fff6462e677ac2f184f8ee6829dc4797f742e954f	89772	62763308233	€8,031706988	Transactions for the storage of the IPFS link. Action 2.4 of the
	Average	89772	66548612774	€8,516105561	MARTSIA approach
2023-02-13	0x00c87cd75d351625f9ccf6dab8ccf22f396f76a1cfd3d6fd928ca50ca0d4688b	21848	55516561696	€1,729001526	Transactions for passing the key.
	0xe4074eacab3212ec6616b0e388ce53001fe7e43d0d54eb0a3662bebbd55ead90	22072	54384338095	€1,711105010	Pair of transactions: key request,
	Average	21960	54950449896	€1,720143650	key on block. 1st auth
2023-02-13	0x17dfa9f0b863f2615d510993d9f5c4e37abb1aca864f2a1cab655cf4cb2c1833	21848	60841282044	€1,894834015	Transactions for passing the key.
	0x5081afcc1a0e15ad2f976ce40d636b3d9404c9021debcfc1f290ad730624700f	22072	61441693923	€1,933151970	Pair of transactions: key request,
	Average	21960	61141487984	€1,913945064	key on block. 2nd auth
2023-02-13	0x29247b7d694a94be1405fb407103184a96fd7ffdbb13248428931afb3e15704c	21848	76705271749	€2,388900319	Transactions for passing the key.
	0xae174e06ad45ce55802d0306fadd949ddb8423d2000c45a0ef0a4545dbf25f94	22072	67167846512	€2,113315023	Pair of transactions: key request,
	Average	21960	71936559131	€2,251869014	key on block. 3rd auth
2023-02-13	0x3d96ce9d17993f32b5cbd05fb455325c90637e880f09af5dd4f56ed68dc302d5	21848	79027716182	€2,461230266	Transactions for passing the key.
	0x55e4b417b168bbdad6d55c7a45a7c9940654de52948a466774a2050c8d06fe76	22072	74780584226	€2,352836071	Pair of transactions: key request,
	Average	21960	76904150204	€2,407372204	key on block. 4th auth

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2023-02-14	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address			Final cost ETH	Final cost €
	0xaa3f974ce4c74f26decab4cb44443a2cf0586d50903b97c5f7ea5c872917f32ed	1692477	1785440337	0xaa0ba694e64Ea49447828C28241d104C0846Ce69			€ 0,00302181670524 4740	€ 4,24885559657642000000

2023-02-14	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)			Final cost ETH	Final cost €
	0xfdcf10b2f4a84a941f656034dca5248d6c077474eb73cfb804e9e2182bef4e00	1692477	1696693309	0xC8bffDbcC4208cd546036eb0928251eD3Ba7aD41			€ 0,002871614401536390	€ 4,03766214542426000000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		
					ETH/EUR 14 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)	
2023-02-14	0x2e2d82449fc098f44a82bde64294f65888e9eb71af7e2d8eb68119e5a3442cbf	67153	3040831804	€0,287118827	€1.406,06	Transactions for storing public
	0xee1db1d56c839ae7eedfd606071cf927685cac0797541d96db1f7c6f50385646	67153	2884228053	€0,272332121		key readers (actors). One for each of the users (manufacturer,
	0x3c0eb235cbf51ac888af900b9a2b0dfae7a5395624890f485f51121f9a8a363f	67153	2830967436	€0,267303193		supplier1, supplier2)
	Average	67153	2918657564	€0,275584714		key_on_block

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		
2023-02-14	0xf9c0c1e597bf5af7f44fe8cd972fd859035000c0f107f1396975d9e20a9edf2d	67153	1521380338	€0,143650477		Transactions for storing public
	0xb00c083237f2e9ddfe6eceb34cbb7b16d4e73494a603e7f28b81de08209c0869	67153	1449831355	€0,136894740		key readers (actors). One for each of the users (manufacturer,
	0xe2eace5113493770751f1d8c8a29b19c8aa053b56d08e13e2d74d2296a46e4e9	67153	1405809743	€0,132738169		supplier1, supplier2) main
	Average	67153	1459007145	€0,137761128		
2023-02-14	0x29c29d0d0ceca83d2c841d456f7bffe356830f13c8772352e6c516a53a142800	67533	2559330262	€0,243022357		
	0x0892c34e7ee5786f77bdba7885c60fd14d357623695f1b99168e5fbebd8223bb	67533	2462917463	€0,233867436		
	0xf96b93ddf7caad5ad95d832bf2af09f8edd14907ff80464a6bc287724a76609f	67533	7542974360	€0,716246525		
	0x2d8637edeb86795da71b6dcf90d032d65aff01eaf83407a1facb099917ca10a9	67533	11335621861	€1,076379075		Transactions for the storage of
	0xc8a5d03f6a27bcbc75c2054a253b9a5fc61433a54367d023fea1e87473e144c3	67533	11162143821	€1,059906389		the user's attributes. Action 1 of
	Average	67533	7012597553	€0,665884356		the MARTSIA approach
2023-02-14	0x397d36129b65e8a93fc50778102c07f217ca6fd0a8c8f5365ba05883dc90835f	67755	9105077925	€0,867418879		
	0x39d3a84e63ef866135ea968998c8ab4681f97d7ca4dfc98b88dc0ffd61a1f581	67755	8762865501	€0,834817124		
	0x49464ae22539c6ed7889914f2f3131862f5a95382b938c689da2995ff81b5a37	67755	14338768420	€1,366019987		Transactions for the storage of the authorities' names. 1st action
	0x47492ec4292f8c9b386ef14ed3b5fc8c1afa84aa9968eb193af873a105a019e2	67755	13470383431	€1,283291037		of the authorities (each of them:
	Average	67755	11419273819	€1,087886757		one transaction per authority)
2023-02-14	0xa67d15bacd09c0ac7a063bdc864ea98761d27265350e00fd923917d5642189d1	113680	12549651558	€2,005947610		
	0xfcb5970d2038b4c4ad9b4927e3e604c0c1131acb6f1cb58e5dac308f3eda6d82	113680	11874930522	€1,898099592		
	0x47bade767a33b6d8d56e3a80c38e76e5232a9b8f8e4a3824d27e11578d7db984	113680	11350734614	€1,814311645		Transactions for the storage of the hashed elements. 2nd action
	0x6b697bc8d16e7330d896bf0ad5e7fd5edae5770a8bf0b7793958621749826a83	113680	10998940836	€1,758080611		of the authorities (each of them:
	Average	113680	11693564383	€1,869109864		one transaction per authority)
2023-02-14	0x4a5f62840b66134e514247e9a593de6840417d9721bd45a040f724ff2df84850	159693	13533190024	€3,038714604		
	0x6ce438376d15815f9d0671c1a2367ddeabacee27449b06643e2b2dd269cf1cfe	159693	12890588231	€2,894426121		
	0xdf05e1b51888dba36de95f7f0b081d03f4764e74626470dcd93139b9860a2412	159693	13435164126	€3,016704071		Transactions for the storage of the elements. 3rd action of the
	0x7559735d1b45bb049f234396076d4790161b9126481f2705cf4a68274e0f1407	159693	11899988155	€2,671998821		authorities (each of them: one
	Average	159693	12939732634	€2,905460904		transaction per authority)
2023-02-14	0x0f7f5c4c2a147ba6286b91a3dc77e50f30d553431c20c6c2947eac23e2b6b6b3	67731	11718042648	€1,115954314		
	0xdcc57e5b0cff72a5d01230b0e94e75e88909d834c0e4796afe77247ea8885757	67731	10858971914	€1,034141701		
	0xf861cb1165431ca45da5cdba8ae0b9bd81ddd8ed5502ae8063bc55382940fba	67731	11073580893	€1,054579740		Transactions for the storage of the public parameters. 4th action
	0x8649c8c84e7b45e82ee8ed57e27c808fd9632cac58e3bd6a9e9d2f43a7f4ba47	67731	12397758160	€1,180686239		of the authorities (each of them:
	Average	67731	11512088404	€1,096340499		one transaction per authority)
2023-02-14	0xa9ae2360d58a392cdab232ec366bc86d4da86f9af8ddcaeed04ff3c887ea207	67688	10451276011	€0,994683360		
	0xc49a3d1a9a09ce14934bd0bffcc6bcf5b7828c3527666f7e1d86c35e722a094e	67688	10224407237	€0,973091490		
	0xfdf9a53d97480c00a843eec4d5d5c2aeab1d7d787a683643dcf823ed81a975b5	67688	9429313894	€0,897419762		Transactions for the storage of the public keys. 5th action of the
	0x31355a3b6f3615dc724befc5dd86ea0dfd0f41611f6697406a6423c82debdbae	67688	9465482320	€0,900862034		authorities (each of them: one
	Average	67688	9892619866	€0,941514161		transaction per authority)
2023-02-14	0x2b22135204e8c592ace9c8ad556252f895f6a516879654ead3cfd3efe9acd2e7	89772	84393633337	€1,065257104		

Transaction hash	gasUsed	gasPrice	Cost €	Description
0x2957c4abfc8b1d91aeaf9d3f58037ada792b1774cfbd3be4c6bc4a6198567e	89772	9182177121	€1,159018639	
0x068acb892b13e590af07d059cd8f2b76b5c707e6f22fead5f01887efc3d3e0ff	89772	7788413448	€0,983091072	
0x592bc1fc243d1e8cb6e8207f16659da7f5c85b0a81e88947d04749aaa4d4f0ad	89772	8885680160	€1,121593364	
0x9a8a6197af0a568eae2d9a40cac76bb3b96f0e56e42c2d04a8875b06462fd600	89772	8673518572	€1,094813306	Transactions for the storage of
Average	89772	8593830528	€1,084754697	the IPFS link. Action 2.4 of the MARTSIA approach

Date	Transaction hash	gasUsed	gasPrice	Cost €	Description
2023-02-14	0x04c2fdce0562d52463a832a91ef3c2ac464a783a4b5628e23cd41569c7137b7	21832	13065460427	€0,401071770	
	0x5ba94c8665999b98e6d2d750b99c6fd2b856d5b15af67808 1b94023449693c5f	22056	14006585285	€0,434373054	Transactions for passing the key. Pair of transactions: key request, key on block. 1st auth
	Average	21944	13536022856	€0,417648309	
2023-02-14	0x1d98a5f770d9f41944e218295072cdfd5e60daf1675a10298a34ec45287a6cba	21832	13273522020	€0,407458658	
	0xa75a0641ceb4a0b66a90ccd76508ba77faf92971352c8d48dd528e3e2265a357	22056	13260368237	€0,411231327	Transactions for passing the key. Pair of transactions: key request, key on block. 2nd auth
	Average	21944	13266945129	€0,409346028	
2023-02-14	0xf963e7037a11b20b885f21bda2732099988f1fa9779a57f56382dd96dd98cb74	21832	13274330339	€0,407483471	
	0x9b1ebb2a190f55003a4fd5b30ffe125fa8097b0edaa372b6a855fbe05d19f90f	22056	14168151112	€0,439383543	Transactions for passing the key. Pair of transactions: key request, key on block. 3rd auth
	Average	21944	13721240726	€0,423363128	
2023-02-14	0x67589690bec7de47985983d2558c440dc143d9b7df181a514abf9cb42ab7d725	21832	15265698169	€0,468612693	
	0xe3b78e98df3fbf0200f5e2481022c5166ad64baecf4ca567ea4967ff572740dd	22056	14735202287	€0,456968968	Transactions for passing the key. Pair of transactions: key request, key on block. 4th auth
	Average	21944	15000450228	€0,462832601	

2023-02-15	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address	Final cost ETH	Final cost €
	0xd104962bbb85c45d59171f0309de9aa0d800a57d41061fb8f57d95ed3ac3a2e9	1692477	28033052121	0x5c0BBEe7663E73254F698612e4d66193b1A98Ef0	€ 0,047445295954593700	€ 68,4711533098315000000000

2023-02-15	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)	Final cost ETH	Final cost €
	0xc277b98c9b6c5f7ffa94062dbe37682a14c6a1770193b25ce4d1137426640db7	1692477	32786991825	0xdD6a1A82106E43680FdeAc417bE1620f284D90aE	€ 0,055491229563000500	€ 80,0827228561398000000000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description	ETH/EUR 15 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-15	0x3ddc9c7b63f7b10c9464ad69a807b3222f90e10790f60784b58821105ec8c62b	67153	26353133494	€2,553948669	Transactions for storing public	€1.443,16
	0x199be361c229956a565e3f442ee2aab55763a9d078068e31663faad2e28f2ec1	67153	24481507162	€2,372564638	key readers (actors). One for	
	0x0c7787e9bca509b52a411c660a9edd4a51766ecb87464e886a40760cb572ba6f	67153	26312629367	€2,550023311	each of the users (manufacturer, supplier1, supplier2)	
	Average	67153	25715756674	€2,492178873	key_on_block	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Description
2023-02-15	0xfaab383c59a22f8f7411fae5771a8302154347c53a8af6f982442b811dcd0cb7	67153	32344385246	€3,134575995	
	0x74c21c14dc8b68f4f44bbe6381181822e4169c63b82aef722eb4d57a12f0c3ed27	67153	30496010315	€2,955445316	Transactions for storing public key readers (actors). One for
	0x9eb079996f09bb4ac39254c9e5d70129c3036f8a699d64546c398cb2952712db	67153	26774366304	€2,594771403	each of the users (manufacturer, supplier1, supplier2) main
	Average	67153	29871587288	€2,894930904	
2023-02-15	0xac22a1ae5e2ff9fb919116162d63328d28227c03a90e1ca3b818e5178ad43e36	67533	25751396410	€2,509754896	
	0xf2565abf0172c154b813b572e8164a35a559bca71faaee3e6a757231b0d37207	67533	22825638872	€2,224607862	
	0x704b1c485c6f3b08a64d63eaa4d80cfb3a89f0e90d239280bedadee41699cb29	67533	22721096727	€2,214419088	
	0x839493d9d5bf722c6f01ee5b502117926e3c624ed4216366ec419db2ff6f719e	67533	22712560451	€2,213587134	Transactions for the storage of
	0xb28af51f7cff11a63f4ed21f73afacbd48c700b23921f4c783485d7e688f1c38	67533	22187532385	€2,162417414	the user's attributes. Action 1 of
	Average	67533	23239644969	€2,264957279	the MARTSIA approach
2023-02-15	0x53062c0fbab2a53b5726f3b4dfbfc913a3f47e61137f56f6f238e95f0cc10e6b	67755	22895957770	€2,238796648	
	0x6f828d3773f9ceb2b57c4ccde689c0cc34cf19d291b6f53699c80d6c74ed86f6	67755	24480120025	€2,393698102	
	0x4cd749ae6e855657c1328afc7266a9c700934f167951fc3f79da5b60afb9c2dc	67755	24591596372	€2,404598405	Transactions for the storage of the authorities' names. 1st action
	0xb6000984b516b4577d1469a348bba437933000253979c1f6995a4a268171a13c	67755	23904508518	€2,337414057	of the authorities (each of them:
	Average	67755	23968045671	€2,343626803	one transaction per authority)
2023-02-15	0xac78eba88cb8d839598dc237b1ffe062b7fa26796f0f531c65c8d9c83c29112	113680	22992742759	€3,772153251	
	0xf7f241541b6e94be7891388ccdfd6386585f15fe1935dbd3364432e9f1163c2	113680	24330710217	€3,991658090	
	0x3a226081b476bc3be7a4d43c2f52e6ea3a805a0b16a4c255744e828e910150dd	113680	22724257996	€3,728106062	Transactions for the storage of the hashed elements. 2nd action
	0x201be21b06eb9c96b2672e391fc6fcf8d55652b8aced6df0cfa6e3289a984d17	113680	22312593332	€3,660569005	of the authorities (each of them:
	Average	113680	23090076076	€3,788121602	one transaction per authority)
2023-02-15	0x7c172103efcbd74dd81ddb129c334efb0032119bdec00e046c5b7d489f9b6563	159693	19880940521	€4,581812246	
	0x7078b7da6ac5f68e68a630736a6db3933ae3984d8cc4c20c194be4c41e51b6c5	159693	18617005770	€4,290522621	
	0xed1f9bc50f1c3509f952405de4fa6a420985f46fdf1a524ce8eb858153582ba3	159693	17869652428	€4,118285664	Transactions for the storage of the elements. 3rd action of the
	0xc3c08e4627613ae97ec2f05eca777bdf7ca763b6ec1aa796efdd6077fc9c049f	159693	15762017278	€3,632554693	authorities (each of them: one
	Average	159693	18032403999	€4,155793806	transaction per authority)
2023-02-15	0x3805b70281e6c972ee9ce8b2aa4cf59e4deedeaa8eca2697f84ee4e21aa045bd	67731	14653242334	€1,432305642	
	0x7f782d271abb4cc46cef5d396ded303cfeac9fd02001208f97163f9859270725	67731	13144777044	€1,284858183	
	0xcd253bd913a7ef4b67808f2cef0f995aef8c63a9f25cad3e24cd325af804c383	67731	12876939294	€1,258677935	Transactions for the storage of the public parameters. 4th action
	0x59762e21d4c507834bd7c6d9f042189aaa2f662d675408c657c56c61934dbbd4	67731	13199523886	€1,290209505	of the authorities (each of them:
	Average	67731	13468620640	€1,316512816	one transaction per authority)
2023-02-15	0x3027f52662847fe1c40ed89c8135c411928780ad27b816addac4e1e1aabc61c4	67688	13628189588	€1,331264441	
	0xb2d15687d9dd257a7dd4c17fd8a46f4794ce8ac7ad32d233ab421ada2bce8cfa	67688	12498996807	€1,220959679	
	0x8eb5b10f3fec18d136bc91bb6866b2787cd972cdf9212f8bdbf785d8de5c43a	67688	13359244314	€1,304992625	Transactions for the storage of the public keys. 5th action of the
	0x6f4e3d070b1e770ef8ea19d47f3cecaef01f7f4617a513bf3639f5341269606c	67688	12358795560	€1,207264175	authorities (each of them: one
	Average	67688	12961306567	€1,266120230	transaction per authority)
2023-02-15	0x39f4b8277595f25d46074b8c5bade54bbfd24d392a3d4b460df17ebb1dba12de	89772	12763381060	€1,653564422	
	0x07402fee27ef60ab47cb6bbdbf599418a13bf14cfd4b5ce8d45a687d694a7d58	89772	18508954187	€2,397934214	
	0x6ea60679ba5243d2bde654618f37163 0a787ad8c46d948d6593dbeab6266f908	89772	20199705921	€2,616980163	
	0x5ee7f77eb566f954db2fbf2cce98acbc889c1ce369c4c6de2ee90a096b070983	89772	17590475072	€2,278940322	Transactions for the storage of
	0xa689ee47a0e32d7c64146a0a1818704ae842be4b2cc8e5ef65586284b7c2f7a1	89772	21347059536	€2,765625973	the IPFS link. Action 2.4 of the
	Average	89772	18081915155	€2,342609019	MARTSIA approach
2023-02-15	0x98b1f73c75b0936963c1c302635aa2d33c9523c54e037a7a040b07288561749d	21832	19734886283	€0,621788426	
	0x935af545f434f4e626c2203fa3b697c5693a2abb95232a1bba38db3e6ab9544e	22056	40058853013	€1,275086790	Transactions for passing the key. Pair of transactions: key request,
	Average	21944	29896869648	€0,946795087	key on block. 1st auth
2023-02-15	0xdc097e4c0a9227551e0a4348f8ccf614c4fc13dfe924ae78b59a1f4faf0ba58b	21832	39902955953	€1,257225191	
	0x490e3a8b5336c05164866e673dfb7771e2865290d937409e288297ad16d082b0	22056	38467249983	€1,224425529	Transactions for passing the key. Pair of transactions: key request,
	Average	21944	39185102968	€1,240941389	key on block. 2nd auth
2023-02-15	0xccb23a5a21bbafb3db4fa039859a78844857f4e08495fbdf5f7008547f38d018	21832	37609036147	€1,184950501	
	0xdb33eaf79935f3b23c39627b6b0585301a84a248126d7c4f82f1823fd0e78c57	22056	36464991948	€1,160692981	Transactions for passing the key. Pair of transactions: key request,
	Average	21944	37037014048	€1,172914199	key on block. 3rd auth

Date	Transaction hash	gasUsed (unit)	gasPrice (wei)	Cost / ETH price	Notes
2023-02-15	0xc3b1450241f1f6d9eb31bd274dce0d438ea89d429658048cd7c6eab21d81795f	21832	35360068693	€1,114092128	Transactions for passing the key.
	0x1247d61f4d89dbf0ca4c77359e70900c997693e22e0a33e1a54f05877ab58f94	22056	32427825644	€1,032188617	Pair of transactions: key request,
	Average	21944	33893947169	€1,073377348	key on block. 4th auth

2023-02-16	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address	Final cost ETH	Final cost €
	0xdae298a5560cc83c3ee95f9362dd899cb6ebdeddc84bc160979739ce37672d27	1692477	2646800729	0x33d3E46E370312ed90204D06135e2DC75BA7cbdb	€ 0,0044796493357415730	€ 7,0499377692201500000

2023-02-16	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)	Final cost ETH	Final cost €
	0x625b8961fd648599c808950203ef7b0d15a9b15edc69da404e9b27d42fb14f4c	1692477	2161063399	0x463AD822C2Eda91e0f8563Ad55f0A8C98bAD06d8	€ 0,00365755009834920	€ 5,7561426182792100000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Notes	ETH/EUR 16 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-16	0x931204e9b9256ba13bb8f1484c4e0046f3cbf6c97a5eb9dcfa359031ef55314	67153	2255587773	€0,238378133	Transactions for storing public	€1.573,77
	0x186e20408f3d444527b8dd14193f1d2a9e5e6c4fc856cf4a23fa20f03d2b89bf	67153	2322534101	€0,245453247	key readers (actors). One for	
	0x5a49138f953eb818633da8f0c6ac9162cd45ea8b035159337d9c0e1548051f48	67153	2147345140	€0,226938686	each of the users (manufacturer, supplier1, supplier2)	
	Average	67153	2241822338	€0,236923355	key_on_block	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Notes
2023-02-16	0x3bd2769fec113dbbaedb49e7201ad9200bf384a780fe953195b62607656e1f77	67153	2657530211	€0,280856767	Transactions for storing public
	0x5efd8dd9f0217936a867208a7d30e6c2507bdd5027bf19111f7c1c5d79ef4119	67153	2994522596	€0,316471260	key readers (actors). One for
	0x632d447370f1093772053e65926c80e13ec187b938071a885e9b1dc2bd86116a	67153	2965679137	€0,313422988	each of the users (manufacturer, supplier1, supplier2) main
	Average	67153	2872577315	€0,303583671	

2023-02-16	0xe513f42f38383720310cc71a325b26948a409224f0243566d338c537a673793a	67533	2061097965	€0,219056397	
	0xf871f827532a9db2e0bdaddd7c99cde4f3e0070324fcee77503e458785c47c32	67533	1799686590	€0,191273227	
	0x6519addddee52eaad0c6a787e13afc6dfacbaf40149f22124e1c89848d5474a1	67533	1893034932	€0,201194421	
	0xfc0695da9651aa05972876c39ae309be8c73edad9fc12cd7e964ca0a3c5b7860	67533	1622959071	€0,172490377	Transactions for the storage of
	0x017b42ec62108e8277c286352245c772c8c5a3a0543d0ded0168c64a6e795781	67533	1559183501	€0,165712220	the user's attributes. Action 1 of
	Average	67533	1787192412	€0,189945328	the MARTSIA approach

2023-02-16	0xe2eb492f5b285c1430189f5a27132cfe54654f971ce7910a26cf89855227cbd6	67755	1342279043	€0,143128270	
	0xa8a32cf57ef2ccf1460de97c079ab4a6d2f1bc050cea3016bd39b931033b2756	67755	1409502732	€0,150296385	Transactions for the storage of
	0x70de5ff43aded5858e15408d1e01a580a0e8476a711f12281d78d353a8ec01b2	67755	1318141893	€0,140554507	the authorities' names. 1st action
	0x8947b0086b462f760a99a6b025124339bc4c7753d5fb5a1e259f51ef0b49b4a6	67755	1308390265	€0,139514683	of the authorities (each of them: one transaction per authority)
	Average	67755	1344578483	€0,143373461	

2023-02-16	0xf44ff2ed18c983d975f06795f646c3ff0200356aaa1c450d3e99be04c2e90df7	113680	1173344924	€0,209918651	
	0x65f7e6b1f952ca77f661d8101151d3eae4f004fa0111016a448f1be9b10dabc0	113680	1356477418	€0,242682184	Transactions for the storage of
	0x93e2abfcb8215d2d6a859ee9ae1425c51554fcf59160338bf1d7a4524a526511	113680	1,39011077	€0,000000000	the hashed elements. 2nd action
	0xc582b98a264e2c9e59089fc9a451598c2a82c428ee01b3a34ac8cd48c6de5cc7	113680	1355977767	€0,242592794	of the authorities (each of them: one transaction per authority)
	Average	113680	971450027,6	€0,173798407	

2023-02-16	0xf8931001173dd4ff9d00433f8b7a289c4f9a8c3c3564c54fcd997ff06f8f3b11	159693	1269343625	€0,319011507	
	0x0999cb89983f60359413b2eb3f84fa070f9f597f507bb2cc57dc15c0c37ae349	159693	1290148763	€0,324240255	Transactions for the storage of
	0x22b2f38c755168d46a73cf77bec24671bc97c1becd8264f0241ecc93af09d316	159693	1386143261	€0,348365597	the elements. 3rd action of the
	0x91278cf3fd1ec7d417736f1470b87f3f80f832d0e8a1c6d11216e912a1818312	159693	1295675244	€0,325629170	authorities (each of them: one
	Average	159693	1310327723	€0,329311632	transaction per authority)

2023-02-16	0x2388828111a8e172349f2564cb617e957e446e945026c9fc4cc634a52223edc6	67731	1315137378	€0,140184459	
	0x50371c5f85649800f0d9b8ae55d817c4139b3d4cd2f54bf1b24401bc97be149cd	67731	2174295150	€0,231764677	Transactions for the storage of
	0xcb9c4d79e081ef201d6ed6046ba99913f3fc8443822c17afb4a2d7af8995804c	67731	2229037046	€0,237695715	the public parameters. 4th action
	0x44365a2d7938d14c1e56932d0990b1b4deddecfa37a3dff69ad15d988c8b88f3	67731	2071704444	€0,220829225	of the authorities (each of them:
	Average	67731	1947768505	€0,207618519	one transaction per authority)

2023-02-16	0x2ae9162bb29bfdce882d3b0218dda3171af345d5f21d395c82be3bcd8b7fa103	67688	3491541822	€0,371937693	
	0x07f3f3ff3350b6c05bc0013cc6608b26656cdb96489b24f4a22b67e942e6265	67688	3935948092	€0,419278224	Transactions for the storage of
	0x89ecf68fe719f54f3e26d3920357fb457bcee869428d063d8991d123d27d1e45	67688	3614443086	€0,385029792	the public keys. 5th action of the
	0xcc332f9785be53105af14981eeeb30f62fb2530067c4946740777fcbd6249fe0	67688	3602307912	€0,383737089	authorities (each of them: one
	Average	67688	3661060228	€0,389995699	transaction per authority)

2023-02-16	0x7184c4c2a326d5eafeaead05d46f189ff03139ff12334aeab98000c3c6694ad7	89772	2912518874	€0,411482066	
	0xd6147abf17138a2d826d73c1bbb269738b628af3ea6804e0d8aeadc0d5196352	89772	2976275159	€0,420489584	
	0x7ff0a5e424efc28ecd282276fd4af09a339e8e61b383ac99d87c1e7ac4c50e4ae	89772	2677830117	€0,378325125	
	0x7f10e3cbb85a237947416159664698a3bed027f269b378799e6a115d86443e3c	89772	2518831660	€0,355861747	Transactions for the storage of
	0xbc859606d85193e14035c5173170d9e9c9cfba34d11f38ba816f588d15067666	89772	3724259098	€0,526165115	the IPFS link. Action 2.4 of the
	Average	89772	2961942982	€0,418464727	MARTSIA approach

2023-02-16	0x50241f38759613b172cfc13e9d954316b4a188b180e0d24827b5c385e90ad357	21832	4216253758	€0,144863733	Transactions for passing the key.
	0x57cf6006787d5b782349ce094c67f30709078af2eb992a2db45563bedef12ea5	22056	3567126043	€0,123818766	Pair of transactions: key request,
	Average	21944	3891680901	€0,134398456	key on block. 1st auth

2023-02-16	0x432475ea178a01df357b6239095b91bbf54cb421ccbfde7ba3c191d7e32ba12c	21832	19503857325	€0,670124192	Transactions for passing the key.
	0x459cd7f422ec97f16755c5a0c0802aad086c7112c2995f73de4f9f10f129137d	22056	18414915464	€0,639201440	Pair of transactions: key request,
	Average	21944	18959386395	€0,654758786	key on block. 2nd auth

2023-02-16	0xf75d610d66ca981ff22c231ab6c9b12a5450afaa54ac3ac529d5e3226e4210ce	21832	18413280486	€0,632653556	Transactions for passing the key.
	0x0578a48d499805b570a6d7092b867d1447f5ca19577fd83a4b15de088fe5e9a2	22056	15654911038	€0,543398730	Pair of transactions: key request,
	Average	21944	17034095762	€0,588269242	key on block. 3rd auth

2023-02-16	0x359637f80e044a99f650f7e747973828cbb1bc1d7cdcd409491b77a215ddfe62	21832	16632493548	€0,571468305	Transactions for passing the key.
	0xdbc0fc263a7302bb4307c8a1a132d5b30cc72fc680030a2d2ce286e814faeb97	22056	13783934493	€0,478455130	Pair of transactions: key request,
	Average	21944	15208214021	€0,525212765	key on block. 4th auth

2023-02-17	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address	Final cost ETH	Final cost €
	0x0a2ed6b29a22b0fc7be7d970faf8fd7237412b4e0d80c48f8400f97449cbfca	1692477	10427400448	0xe39A72744e7aF12bC96F59b6c8B740DfDD587953A	€ 0,01764813542802960	€ 27,6057428805670000000

2023-02-17	transaction hash	gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)	Final cost ETH	Final cost €
	0x01208e050f7315d1f8505497aed3821ddfb5cc9f5a6a8a5cd20144e37089e03d	1692477	12275110888	0x61EDEb1AaF9de9dD884355EDa124DbB91BC39db4	€ 0,02077534251189410	€ 32,4974140173801000000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	Notes	ETH/EUR 17 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-17	0x1e40f3854724f2eb21bd2cb9c696fa284d252d9bf333a218a03fa31cd29f36b	67153	8942945016	€0,939391423	Transactions for storing public	€1.564,23
	0x03222b4e3b0dbdd5fe9a9d2dfb63f8e8144ddc4acaf9b3f3804d8ba9c3e01597	67153	8703045754	€0,914191748	key readers (actors). One for	
	0x8e65d31e54b623901ef59da515a8355292ea2cf4b8c6e814088bdef13738eedb	67153	8410055642	€0,883415265	each of the users (manufacturer, supplier1, supplier2)	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
	Average	67153	8685348804	€0,912332812	supplier1, supplier2) key_on_block

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0xc7bf20d6ca52d262c4c2ca9bab725df4b50920b3e964f003f8b73790ba5f5bd9	67153	12518954030	€1,315025198	
	0x1ff107e338c3498a58eaa0b4de767900e5e423153b182a0aad25ae37fdc35d343	67153	12018451901	€1,262451084	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main
	0xbdffe4b1c9c5576469311f74cf46c245c24e14ab0acc72527890b12bfe47d9a6	67153	10717974130	€1,125845340	
	Average	67153	11751793354	€1,234440541	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0xa59178031ef34ef8bf54437bfd7eca6bd9d7bed479fd76bde7725f9effe521a0	67533	8608223224	€0,909348121	
	0x396d64ec383f77740e4e38c85e024be9f13d66025810d000994e8eaa6486c3af	67533	7237661307	€0,764565874	
	0xf53ef99299dd09507ae3504f96abece623a3f448c07aad05c8d75d237e96ce18	67533	7256302576	€0,766535084	
	0x9dadadcf94e54816917459d8441f65ee10559c5e26b9a660d42f680cc6753006	67533	7077099551	€0,747604589	Transactions for the storage of the user's attributes. Action 1 of the MARTSIA approach
	0x227e1240526310e23d5bf9622997cc94f484f57438cc78cb818040fd3ce3a503	67533	18861563416	€1,992481702	
	Average	67533	9808170015	€1,036107074	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0x2f79266334ff14733a10d9bdbaa16cb2a6757ea3e34a9e54af7619edee45ac40	67755	18148518948	€1,923459958	
	0x45582a85831c5043250337aa4bd628d98d374f6ed348043c87c0fc5c0dd7fc5c	67755	17175920509	€1,820379692	
	0x902afc0b804feb7b9adba26f23e594d08350a7b5f5a23df0de91cca9ab4daab8	67755	17532939642	€1,858218152	Transactions for the storage of the authorities' names. 1st action of the authorities (each of them: one transaction per authority)
	0x1ee92fc8976aa323793dfca456c6cf388caa0b879f538316362e0cf8e95baee7	67755	18107713964	€1,919135266	
	Average	67755	17741273266	€1,880298267	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0x4807cd997b9e71cb61ab9deea13387e63bf33e1bd2f4bc1d52d404c6ce8d7775	113680	17872786297	€3,178168643	
	0xb6f7cdc1d58fc25454bf3ebc5480948a9e2c3bbe3a3b3d7a54e1d7d4392dbb70	113680	15745845664	€2,799952515	
	0xed93c7da86836e5dddd17e9efbd9b28e0bea590f292504e059bd33b886a3f2c1	113680	15166801258	€2,696985874	Transactions for the storage of the hashed elements. 2nd action of the authorities (each of them: one transaction per authority)
	0xee9c3f46c0be9f14e3c41a55333d560ce32d2fb7c8593e25f417ffc594ed82b	113680	14002703511	€2,489984072	
	Average	113680	15697034183	€2,791272776	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0x14086e65bb756d809367e5b51bcc50ee3d32eae262b9b02413f1f549b1499091	159693	14527763128	€3,628985565	
	0xb66001e6de77ef17a37a8133d61faee8ec65561f9d56871a838948fde56ca522	159693	14624843973	€3,653236028	
	0xaca35b1fdd48399e646b107c521b624a1f241797864f57a21d9d67f840bbd9d	159693	12605968181	€3,148927757	Transactions for the storage of the elements. 3rd action of the authorities (each of them: one transaction per authority)
	0xa83019c2f17d14d0b702bafddfa48cd2d10ab36018ac9a7f4fa5cc242fad34cf	159693	13034419812	€3,255953500	
	Average	159693	13698248774	€3,421775715	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0x36243d57e919656017525c00f54466f9b26c90f640c38c2edb9afdedd21df836	67731	10253549899	€1,086331437	
	0x7e365d0ad7ec15e2c33bcd33c0940882ecfc7ad213ca06a1ff2d3be4c7d7049e	67731	11560926540	€1,224843890	
	0x42965bdd768513faa4d0e600908e7b7497b1d48496925f9f479b4c6e8019168f	67731	10469425058	€1,109202733	Transactions for the storage of the public parameters. 4th action of the authorities (each of them: one transaction per authority)
	0xdff4c51c0b077c403f8ecadae661836df82f65809c540b9dfa1d644e8fc2a5b2	67731	11197614629	€1,186352133	
	Average	67731	10870379032	€1,151682549	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0xad243e59f84fc49448c9995036e85d83ef3c4cb7a4dc3ff639a5a93effc48586	67688	10785980196	€1,142015271	
	0xa497de569c40ebf736bc798081dc3ec10a119c121782175b1bed1b8dd76e5b72	67688	10325017088	€1,093208682	
	0x7681c371f0045ce1da1d9c86ae521ad9a25c4954c931a9bff870a439f70b0d69	67688	9190016948	€0,973035321	Transactions for the storage of the public keys. 5th action of the authorities (each of them: one transaction per authority)
	0x33e4a51f2f556fdef8f85b6f83a2309e98dedb44947ee24758448c287f57383c	67688	9420437068	€0,997432111	
	Average	67688	9930362825	€1,051422846	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0x737c40721f4f20833dbac6afafaa2778b826fcd80b475e717035872dff41b6f6	89772	11322755216	€1,589987208	
	0x3d011113946a34a0ca817b2b05c5dbf130438dbea583b1faf7b3bebc88212094	89772	10552062033	€1,481763345	!(sarebbe 89760)
	0x472ce2719c1fead9901eb08f9d838db28f78c287a71bd90c8ab8577793198272	89772	10817262854	€1,519003920	
	0xaa7c2ac645b9d6defec95511fde599d8e39c536e902f9282cc1cf5a2a425b130	89772	11236466887	€1,577870250	Transactions for the storage of the IPFS link. Action 2.4 of the MARTSIA approach
	0x4fce394cc40c6c3475158086f64d211dfc36e1ab012882aedf08ed34c5a393d7	89772	11887829875	€1,669337283	
	Average	89772	11163275373	€1,567592401	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0xa692b93877b2c72e9a055a73350023c3c1f38e70ce54338a254572389b7ef3e0	21848	13115805275	€0,448236541	Transactions for passing the key. Pair of transactions: key request, key on block. 1st auth
	0xcba65a021b099b4e6b0220eebaa758a6c80ee82236059ced46eb1e714a533436	22072	14618996553	€0,504730864	
	Average	21960	13867400914	€0,476352028	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0xa64765e5be7f625913983400cb35c9626905bc2846eb22f93f3c616dc393c9d6	21848	17044020521	€0,582484464	Transactions for passing the key. Pair of transactions: key request, key on block. 2nd auth
	0x02f84c8508f946869a1d39e4fa7d33de921675db3a72abde10ba0166c2ea1123	22072	16738707824	€0,577915346	
	Average	21960	16891364173	€0,580226650	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0x89d83342ecb539893517f360579d24cf01f687ee97f3a2518583c6b6e312f94e	21848	18351184220	€0,627157172	Transactions for passing the key. Pair of transactions: key request, key on block. 3rd auth
	0x1fe4f4079437428d09f932284e09e66ac356bce2566e2a4ee30a19589cd9faf	22072	18651698136	€0,643962646	
	Average	21960	18501441178	€0,635533585	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-17	0x5c140047b4dd7bbeca3628b54165357ff92441034a347c311512a671b4cb813e	21848	18134140190	€0,619939628	Transactions for passing the key. Pair of transactions: key request, key on block. 4th auth
	0x961771a3e3be9cafd98857df38bfbfcc44d90c626037aa16a4d04ca1006ee0bf	22072	18014348057	€0,621957699	
	Average	21960	18074244124	€0,620859156	

		gasUsed (unit)	gasPrice (wei)	contract address			Final cost ETH	Final cost €
2023-02-18	transaction hash							
	0x2e63421338f6a668bc2e377aa893d529a344b1369ba2a2824b200ae7dcb9ae01	1692477	914104552	0x6a2B14228bFb65928eBf03F5f22FbF758A7b2f92			€ 0,001547100929855300	€ 2,445951090091930000000

		gasUsed (unit)	gasPrice (wei)	contract address for 'main' (public keys)			Final cost ETH	Final cost €
2023-02-18	transaction hash							
	0x42d6d3a3c54082623a0b0e700e53a0962b7161f82c1ef422943c0b429783c646	1692477	940609709	0xc043776dA2379dFEc7819a013F1A83c4b4D21dA6			€ 0,001591960298459190	€ 2,516873312260990000000

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price		ETH/EUR 18 feb 2023 (adj. close, source: https://finance.yahoo.com/quote/ETH-EUR/history/)
2023-02-18	0xe8b531b9289bb7692a65d9927139c15ddbb52d319b1cd7a9150c358a4fe3793b	67153	909007138	€0,096507671	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) key_on_block	€1.580,99
	0xa5e63da2ef77b5321da9ccc5f442cad55c94ccc76a0db448184de80322774c0	67153	908372422	€0,096440284	
	0xaa2ae20241ac388014b940cea6aa5c9298cbbe4fb663cc00b3b5c38f2f7e5f06	67153	908583994	€0,096462747	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-18	0x4ed6c8996f7b434bfa330f15267eb56a2d79c552ddcac49a67130b40bde5f2ce	67153	928121552	€0,098537014	
	0x18edefb8a04388399ef2c217eaa3215874e97cecb2a0d63925c77158e345837a	67153	921536886	€0,097837932	Transactions for storing public key readers (actors). One for each of the users (manufacturer, supplier1, supplier2) main
	0xcf536582143c2b9b7b1fbd619d9e34a8c8dbb97e28ebac31a1a1b28092ebe02	67153	926088590	€0,098321179	
		67153	925249009,3	€0,098232042	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-18	0xa1be5b64465deeceb57431ea796b1919059e9ed115a86bb8006ee7f2cdcee04	67533	858171275	€0,091626087	
	0x5d6ed50d2a4b628e96dc18fe089c5c98331eeb5f57f5387589193ac83e1b2135	67533	765954440	€0,081780188	
	0x8c0cc49895285f156a290290bcdd3a9f5c40ef542143546e214813161d96fe9	67533	708586056	€0,075655023	
	0xb2763f0d160be15a69c78f08392c6252f07d2025b5d7582d1ed47356bfdd7c92	67533	709926729	€0,075798165	Transactions for the storage of the user's attributes. Action 1 of the MARTSIA approach
	0x593c393449a96895239e97e8b9d11bdfa0ab8b172b20f5b7192710543a161818	67533	709375434	€0,075739304	
	Average	67533	750402786,8	€0,080119753	

Test date	Transaction hash	gasUsed (unit)	gasPrice (wei)	ETH price	
2023-02-18	0x87684f410edd3ebafb194d1515d6eb7e81b423b8e5ae7d837abb12ac8b8a69d8	67755	708375582	€0,075881176	
	0xd708aa5925180e159f3407f98c43ddacfa4b476f9c7690876f22092d25620824	67755	711091608	€0,076172117	

Date	Hash	Block	Value	Cost	Description
	0x8482edff33db06b5f03c4a9f51ee9b7947d52fadc4f57da421621096c362d1ba	67755	716746028	€0,076777818	Transactions for the storage of
	0x0c99799afc5f2d24d1b22fbbf87053015c06ec43af2dc8bc4028e220e33c4690	67755	715410674	€0,076634775	the authorities' names. 1st action of the authorities (each of them:
	Average	67755	712905973	€0,076366472	one transaction per authority)
2023-02-18	0xa95b92f7d3d1a6adfa5edc0787ef34d0a7d3fe2e8ab2999d7cd53dbdb0e73498	113680	711801840	€0,127929969	
	0xceabd4b2802d79326cb5eb8ae202727d907b2803050fbb205d9fc2a9c1741727	113680	705596079	€0,126814626	
	0x44fafcf11f5a4036b6d6fbf2b49de882704619239d3ca69ea3809017d07691c1	113680	708298789	€0,127300376	Transactions for the storage of the hashed elements. 2nd action
	0xd50df0a516ebc675dde2ade3bdeeeaf1b96d4ebdbe2a3c3572b9bfeb4707ef1c	113680	708113444	€0,127267065	of the authorities (each of them:
	Average	113680	708452538	€0,127328009	one transaction per authority)
2023-02-18	0xc43fd5b276380c2fa2f8de8dd4b08009ba2f3f67e7033d233799085fe90c7849	159693	706041306	€0,178256392	
	0x07ec4ce635dd3bb1377d4ac56f0ad52d22bac93de0bac8fad8a41ca1e869bb4c	159693	712036677	€0,179770062	
	0x75a060386c6238f03f4cc9c4ac6c1baf70667eac8629961b391187139505d8ce	159693	713784936	€0,180211450	Transactions for the storage of the elements. 3rd action of the
	0x5850ee561c23646a59195e06b09fc02aa9e7e5cef56d3d22b974ab88511edc8d	159693	708276968	€0,178820836	authorities (each of them: one
	Average	159693	710034971,8	€0,179264685	transaction per authority)
2023-02-18	0x915e16178b7a070ee5f91ab0c8e369261935d47e7b82cd6f21ce050641745baa	67731	703195173	€0,075299569	
	0x3e2a9adb407c1a18a09285880e10e3f8752122e1e602490e9664b7666b05f68f	67731	699586527	€0,074913148	
	0x4d1aaa8a59f68b406a12011a01089c38e95f9009b0b5d3865b48412b88453799	67731	698874985	€0,074622791	Transactions for the storage of the public parameters. 4th action
	0x65ad12b0d54722fbd2c140b0b4327d076674473ebb84ca9c27ffc55b3588a97a	67731	694233970	€0,074339985	of the authorities (each of them:
	Average	67731	698472663,8	€0,074493873	one transaction per authority)
2023-02-18	0x81bb2195f67aaa989004188e80e9a580ae43d4514a5d8732fb7d20bd8d449e7e	67688	691921119	€0,074045282	
	0xab0d63d25819b210c449f6a3532ad4cec28fd6a06c441f36e838ffe6332a1a1b	67688	691668811	€0,074018281	
	0x0738597005c08c238ebe5160ad5b2d99df1a462249f165feae853d53c0d3491c	67688	690097171	€0,073850094	Transactions for the storage of the public keys. 5th action of the
	0x9ff99addd741dc8d08971eeada31e8bf0e9f76cab02ecd7b7229e7a394e97fba0	67688	687675153	€0,073590904	authorities (each of them: one
	Average	67688	690340563,5	€0,073876140	transaction per authority)
2023-02-18	0x9d3426bb8b17993cfb94a835eecd30202280b02de0c82eecc16c255ada2d668	89772	685995519	€0,097362407	
	0x0736ff6aba4b7df4de4441dc45106ed4a483c2baed98ef34177e3c9ab6fc50e1e	89772	685135285	€0,097240315	
	0xea428ca1a2dd135213afd1b7d18793b93d22676045d33c092adb59368052a2d5	89772	684374701	€0,097132367	
	0x15175b011b345d27206a4d298603c58b1cd8aebc632a4e01725a4b64336d68d5	89772	683755238	€0,097044447	
	0xbcaae27991d984b64630c97a721a5c0423bd74d31008d3773d23a9a79fd32b51	89772	682977259	€0,096934030	Transactions for the storage of the IPFS link. Action 2.4 of the
	Average	89772	684447600,4	€0,097142713	MARTSIA approach
2023-02-18	0x2466f59baa7d5e4887999b3c9382c20a8e78df1a5c29fd184290dfbbf80c56ff	21848	682212597	€0,023564626	Transactions for passing the key.
	0x447d010e6dc8afbca20a00259efd80a75a48b1302b361cce8aa5f1b96eb70b55	22072	682129561	€0,023803328	Pair of transactions: key request,
	Average	21960	682171079	€0,023683984	key on block. 1st auth
2023-02-18	0x6feb0dcbbcaf801b42c430f8e8da35f3b70a131f220ab1ee685bd65f3063cd08	21848	679460325	€0,023469558	Transactions for passing the key.
	0x8b21c742732ed08d3f6c34c5e8489653967adf0d3b6c13fb393bcafd2573f143	22072	678613975	€0,023680649	Pair of transactions: key request,
	Average	21960	679037150	€0,023575179	key on block. 2nd auth
2023-02-18	0xdf7d0e78a7179ca607062ce0acff85998e8b137f12aab8825b360aa52fe4321d	21848	678019336	€0,023419784	Transactions for passing the key.
	0xb2beebee9b286981ff6caf0cd0312fd1199149fd7ef43f2bfcfe4e91ee357bb5	22072	677480764	€0,023641105	Pair of transactions: key request,
	Average	21960	677750050	€0,023530492	key on block. 3rd auth
2023-02-18	0x5190513ea5f391b4123eeed470a386b51cc9a1086e9f3dd5d63357202f1a4ee5	21848	677302122	€0,023395011	Transactions for passing the key.
	0x91de9ddc5de0c50c14c6ec46d142c0e6f16205231390059c46db590ce11ba44c	22072	677245104	€0,023632882	Pair of transactions: key request,
	Average	21960	677273613	€0,023513951	key on block. 4th auth