

Short Summary of Exportable Digital Solutions Offered by the Hungarian State

National Tax and Customs Administration (NTCA)

1. **e-PIT (e-personal income tax)**

<https://www.nav.gov.hu/nav/szja/szja>

The essence of the e-PIT service is that based on the data available to NTCA, it prepares a preliminary PIT return, which can be verified and then submitted, approved or amended on an online interface. It is a completely online process. To use the service, one should create an account on the e-government customer portal (“ügyfélkapu”).

In 2018, NTCA prepared five million PIT returns, and in 2019, the services will be available to sole traders as well.

From 2017, NTCA introduced a large scale innovation of such magnitude that rendered even a tax return of the “size of a beer mat” unnecessary, and the personal income tax return scheme was renewed not only in terms of its technology: a change of philosophy also took place in the area of taxation. The success served as a good foundation for the extension of the e-PIT scheme.

<https://novekedes.hu/interju/soralatet-helyett-eszja-interju-sors-laszloval-a-nav-vezetojevel>

The tax authority prepares a draft PIT return for all taxpayers — whether they are employees, primary producers, VAT-subject private individuals or sole traders — in respect of whom it has data from a paying agent or an employer.

<https://24.hu/fn/uzleti-tippek/2020/01/28/nav-szja-adobevasallas-tervezet/>

2. **Online Invoicing**

<https://onlineszamla.nav.gov.hu/home>

The free online invoicing function was developed as a mandatory service of NTCA. Its purpose is to make the invoice turnover of enterprises visible and traceable for NTCA, to prevent problems and abuses related to invoicing, thus facilitating more efficient risk management. As a consequence, VAT revenues may significantly rise. Enterprises are obliged to upload their invoices, meeting the prescribed limits, to the system manually or through an automatic interface. As of 1 July 2020, and 1 January 2021, the reporting obligation will be further expanded.

The development makes a large volume of invoice turnover visible and traceable for NTCA, thereby facilitating a more efficient risk management.

As of 13 August 2018, 270,818 taxpayers registered themselves in the online invoice system. Based on the study prepared by the European Commission — as result of government measures aimed at the reduction of VAT evasion, the online cash register system, which was completed in 2014, and the Electronic Trade and Transport Control System (EKAER) implemented in 2015 — the VAT gap in Hungary declined from 17.04 percent registered in 2014 to 13.74 percent. The objective is to reduce the VAT gap below 10 percent. Due to the fact that the Online Invoice System receives real time data, the tax authority is capable of swiftly identifying infringing conduct.

To date, 318,000 enterprises have registered in the online invoicing system, which received 14 million pieces of data, while the free invoicing application is used by 12,000 users. Daily data is submitted to NTCA by 22,000 food and beverage vending machines. 110,000 enterprises registered themselves in the e-government company portal (“cégkapu”). The EKAER system received 13.5 million notifications, while the online cash register received 27 billion records.

<https://ado.hu/ado/sors-laszlo-folytatodnak-a-fejlesztések-a-nav-nal/>

3. Online Cash Registers

https://nav.gov.hu/nav/online_penztargetpek

As part of these services, at the various points of sale and in shops it is mandatory to forward online data on the products sold against a receipt.

The purpose of the online data supply and the development of the system managing the data is to further reduce the shadow economy by curbing tax evasion. Online cash registers support the audit work of NTCA, making the economic processes more transparent, and broadening the range of compliant taxpayers.

At present, sales data is received from more than 150,000 online cash registers with a daily average turnover of HUF 30 billion, thus the turnover in 2018 exceeded HUF 6,640 billion to date.

Prior to audits announced on the website, NTCA performs preliminary filtering and risk analyses to be able to select the audit sites and taxpayers in a targeted manner to ensure that audits are performed at sites where there is a likelihood of any irregularity.

The number of offenders significantly declined compared to previous years, the impact of which can already be felt based on data submitted through online cash registers and the employee registration data.

While on 31 December 2015, the amount of arrears was HUF 243.8 billion, according to the data from 31 July 2018, it was HUF 194.3 billion, which is a decrease of more than 20 percent.

<https://novekedes.hu/interju/soralatet-helyett-eszja-interju-sors-laszloval-a-nav-vezetojevel>

Until the end of September, the 2018 turnover exceeded HUF 8,533 billion. Online cash register data significantly increased the efficiency in the area of selecting the subjects of the audit and support procedure and in the performance of onsite audits.

<http://szak-ma.hu/ado/adozocentrikus-hivatal-interju-dr-sors-laszloval-101868>

4. Electronic Trade and Transport Control System (EKAER)

<https://www.ekaer.nav.gov.hu/>

The objective is to strengthen the position of law-abiding market participants, to ensure the transparency of merchandise trade, prevent abuses related to food, often jeopardising human health and last but not least, to identify tax evaders. EKAER helps track the actual route of goods, since the data related to transportation (description and volume of goods, addressee and sender data, registration number of the transporting vehicle, etc.) must be captured in a central electronic system prior to shipping.

Certain parts of such data (product weight and value, registration number of transporting vehicle) may be amended until the arrival of the consignment, and it is sufficient to capture them only on the first working day after arrival at the destination (point of unloading). The supply of the motor vehicle's registration number is not a condition of allocating the EKAER number, but this data must also be recorded prior to the commencement of transportation.

In addition to the positive feedback from taxpayers, the increase of several hundred billion forints in tax revenues may also contribute to the fact that since their introduction there has been continuous international interest in the online instruments reducing the shadow economy. The Polish SENT system, developed based on the model of the Hungarian EKAER, was launched already on 1 May 2017, and from 2019 the Slovakian Tax Authority also applies the new online road control system.

<http://szak-ma.hu/ado/adozocentrikus-hivatal-interju-dr-sors-laszloval-101868>

The development cost was 4.5 billion, and it generated revenues of 450 billion as early as in the first year. However, it no longer complies with the EU directives, and thus will be replaced by 2022.

EKAER overview: <https://iriszoffice.hu/ekaer-roviden-erthetoen-attekinthetoen/>

1. **Smart City Methodologies**

<http://okosvaros.lechnerkozpont.hu/hu>

Based on the requirements of Hungarian cities and the guidance of the European Union, the methodologies contain proposals that may ensure the systemic implementation of certain smart city development models.

Sustainable urban development, implemented in accordance with the methodology, enforces horizontal criteria — high quality and efficiency, environmental and economic sustainability, increased involvement of the population — in the development of both services and infrastructure. Information technologies integrated in the set of development and operational instruments provide assistance in attaining these objectives and in the monitoring of the development.

The Inventory of the Smart City Methodologies already contains 234 projects in Hungary, and 900 in the world in total. In Hungary, it monitors projects implementing smart city developments in roughly 66 settlements.

2. **E-public Utility**

<https://www.e-epites.hu/e-kozmu>

The revised Uniform Electronic Public Utility Registration System (e-public utility), developed and operated by the Lechner Knowledge Centre, was launched on 1 July 2017. The system consists of two main elements: the information system and the public utility verification system; the latter includes a planning support module and a public utility declaration module. The users of the system are public utility network operators, citizens, specialised constructors, supervisory authorities and the Lechner Knowledge Centre, as operator. As of 1 July 2017, citizens and constructors can initiate a public utility verification only through this system, with a 30-day period to respond to calls for supplementation. Certain services offered within the system are also available against payment of a system utilisation fee.

In 2019, the Lechner Knowledge Centre's Uniform Electronic Public Utility Register System (e-public utility) project won the "Quality and Innovation" prize of the Hungarian National Committee for EOQ in the corporate category.

Formerly, there was no proper interface making the set of information related, at present, to almost 200,000 applications and roughly 700 public utility network operators and public utility networks, visible for users in some form. However, since 30 June, the derived, and in certain cases aggregated data and information related to public utility verification in respect of any settlement is available to anyone, thereby offering a certain insight to the system.

This is due to the fact that by the end of June 2019, a public interactive statistical interface — built on the data available in the e-public utility database — was completed.

Statistics on the number of users: <https://www.e-epites.hu/e-kozmu/statisztikak>

3. **Geographic Information System (GIS) Platform for Settlements and Smart City Pilot Projects**

<http://lechnerkozpont.hu/oldal/telepulesi-szolgalatasok>

Government Decree No. 252/2018 (XII. 17.) on the Establishment and Operation of Smart City Central Platform Services appointed the Lechner Knowledge Centre as the provider of the centralised public service of the Geographic Information System Platform for Settlements (*in Hungarian: "Települési Térinformatikai Platform"*) and designated the city of Monor as the local government that is currently connected to the smart city central platform service; subsequently, other cities will follow suit. The essence of the platform is that a central "standard package" will be developed, open for other settlements to join, and they will need to deal only with those

developments that serve specific local needs. As it is not necessary to create separate, insular developments — which may be based on different technological foundations and protected by licences — in each settlement, it may be of great help in the penetration of “smart city technologies”.

According to plans, the developments in Monor will be completed by 2020 with the following elements: modernisation and “smarting up” of street lighting; development of a settlement GIS platform; creation of automatic, “street furniture-like” public lavatories; offering electronic service systems for the local population; development of a smart classroom; implementation of a city card system; installation of “smart” street furniture and bicycle sheds, development of a public surveillance system and integrating it with the services.

Digital Success Programme

1. **Smart City Marketplace**

<https://www.civitasapiens.hu/okos-varos-piacter>

The marketplace represents a software solution and legal framework, which helps the participants of the marketplace — developers, local government and sponsors — liaise with each other. Following a strict preliminary survey and control, it provides suppliers with the opportunity to present innovative solutions. The creation and operation of the marketplace is a long-awaited solution: the market for smart city applications and products is not regulated, there is no monitoring system for technical, economic and social features and impacts of the investments implemented under the title of smart city (digital city, intelligent city), and these circumstances may hinder the realisation of the developments at settlement and regional level based on the smart city model.

Ministry of Interior, NISZ National Infocommunications Services Company Ltd. (NISZ Ltd.)

1. **Solutions for and Methodology of Regulated and Centralised Electronic Administration Services**

<https://euf.gov.hu/eusz-tajekoztatok>

<https://www.nisz.hu/e-kozig-szolq>

The e-administration process comprises electronic administration services representing sub-processes. Certain electronic administration services can be rendered without special regulations being required; however, in order to protect the interest of customers and to ensure proper service quality, the mode and conditions of the operation of the most important services must be laid down in law. These are referred to as regulated electronic administration services (“REAS”, *in Hungarian: “SZEÜSZ”*). In order to ensure the functioning of e-administration it is essential that the individual REAS actually work. The state must ensure this even if these are not provided by any provider on a market basis. These services are rendered solely by the state and referred to as central electronic administration services (“CEAS”, *in Hungarian: “KEÜSZ”*).

E-administration offers advantages for each stakeholder (the state, enterprises and the population), since it increases efficiency, saves time and cost. Thus the introduction, use and penetration of electronic services ultimately have a favourable impact on the competitiveness of enterprises and the national economy, on equal opportunities and on the population’s quality of life.

Advantages of e-administration for the population:

- e-administration improves the quality of services:
- e-administration contributes to the strengthening of relations between the citizens and the state:
- the use of e-administration services improves the quality of life:
- e-administration may result in major cost savings:

Advantages of e-administration for the state:

- e-administration increases efficiency: infocommunication technologies foster a more efficient processing of the large volume of public sector data; internet-based applications make data collection and transmission, as well as the provision of information to public sector customers cheaper.
- e-administration facilitates a more efficient attainment of policy objectives:
- e-administration facilitates the achievement of economic objectives:
- e-administration plays a major role in the reform of public administration.

National Media and Infocommunications Authority

1. **Average monthly cost indicator**

http://nmhh.hu/cikk/167306/Tajekozodjon_mielott_elfizet_vagy_dijcsomagot_valt

With the ever-increasing number of offers from telephone providers, it is difficult to find the tariff plan that best suits the consumers' needs, makes phone calls cheaper or offers higher data traffic. The average monthly cost indicator (AMCI) of the National Media and Infocommunications Authority may help consumers understand the landline and mobile tariffs and compare the offers of the key service providers (Magyar Telekom, Telenor, Vodafone, Invitel, UPC, Digi).

Based on tariffs published on the website of service providers and the General Terms and Conditions, AMCI shows in a single figure how much the use of the mobile or landline phone would cost for an average consumer monthly. The average phone usage structure generated on the basis of the traffic data published by the telephone providers is an informative basis for comparison; in reality, telephone usage of individual users usually differs from the average.

2. **Measurement of Internet Speed**

<http://szelessav.net/>

The szelessáv.net ("broadband.net") service was developed within the framework of the Broadband Programme of the National Media and Infocommunications Authority as a user and communication interface. It enables the verification of key features of the broadband services rendered in Hungary, by using an independent database of the results of regular measurements carried out by the National Media and Infocommunications Authority and the users, continuously authenticated by the experts of the Authority.

The results of software-assisted measurements launched by the subscriber should be used to learn about the prevailing status of the internet service, while the results of measurements carried out during different periods should be used to optimize internet usage (e.g. scheduling downloads of large data contents). Based on measurement results, it can also be concluded — particularly in the case of unfavourable results — whether the local network was developed inadequately. After registering on the szelessav.net site, the system stores the measurements performed in the user account while logged in, and thus later on, the registered user can access them. These measurement results are illustrated in tables and charts, which the registered user can download and print in various formats.

National Mobile Payment Plc.

1. **Mobile Parking Fee Payment**

<https://nmzrt.hu/szolgalatasok/parkolas/parkolas.html>

Parking fees imposed by parking operators in parking zones can be paid quickly and conveniently by mobile devices: by SMS, phone call or mobile application. Hungarian mobile parking, rendered as a public service, operates in a uniform scheme since 1 July 2014. National Mobile Payment Plc. acts as an integrator between parking operators and resellers rendering mobile payment services.

Last year, 26 million payments were transacted through the system, which is up and running for almost four years now; in addition, the system also served the same number of other transactions related to payment verification and to services. The number of parking transactions is materially higher, while in terms of collected revenue, motorway vignette transactions are also significant, exceeding HUF 10 billion. The uniform service platform has a 10 percent market share in e-vignette purchases, while the penetration of mobile payments in parking exceeds 70 percent. In certain areas of Budapest, the share exceeds 80 percent. In provincial cities, mobile penetration was around 20 to 25 percent at the start, which has doubled by now and reached 50 percent.

<https://www.portfolio.hu/uzlet/20180319/indul-az-orszagos-e-jegyrendszer-hamarosan-mobilal-es-kartyaval-is-utazhatunk-279866>

2. **National Electronic Ticket Platform (NEJP)**

<https://nejp.hu/>

The Platform includes the settlement and core data subsystems required for the operation of ticket systems, the national traffic card scheme, the mobile applications related to the ticket system, the modules ensuring the transferability of interoperable tariff products and modules of central revenue registration data transmission. In addition, the NEJP also includes the security and application management necessary for the communication of the implementation of the standard and transferable national ticket scheme.

In the first half of 2019, the turnover of the National Mobile Payment System increased in excess of what was registered in 2018, while compared to 2017, the number of transactions — related to mobile payment services standardised across the country — ending with payments increased by almost 20 percent in 2018; in the first half of 2019, the turnover value increased by almost 25 percent. By mid-year, almost 2.6 million users were using the system. While, despite the rise in the number of bankcard transactions, the cash turnover decreases only moderately, the number of transactions realised via the National Mobile Payment System increased in the past period to a higher extent than expected. In 2018, more than 33.3 million mobile payments were transacted through the system operated by the National Mobile Payment Plc., which significantly exceeds the 28.4 million transactions registered in the previous period. Until the first half of this year, more than 19 million transactions, ending with payment, were realised through the National Mobile Payment System.

The 5-year old National Mobile Payment System handled more than 133 million transactions since its introduction, i.e. in the period from 1 July 2014 to 1 July 2019.

<https://nmzrt.hu/aktualitasok/hirek/vartakat-meghalado-dinamikus-novekedes-a-mobilfizetesben.html>

3. **National Smart City Technological Platform (in Hungarian: “Nemzeti Smart City Technológiai Platform”)**
<http://www.nscp.hu/>

The relevant Government Decision No. 1486/2015 laid down that the following services will be subject to central coordination:

- a) Central geographic information system platform (GIS)
- b) Central smart card management centre platform (City Card)
- c) Central payment and settlement system platform (Payment)

The scope of the NSCP projects covered items b) and c).

In order to ensure feasibility and workability, the National Mobile Payment Plc. developed a technological platform based on three elementary services, which are aligned with the current technologies, statutory regulations and the status of the related projects, and foster additional future innovative projects.

NSCP supports the following objectives by developing central solutions (which enables settlements to avoid the need for and cost of individual developments)

- Supporting the implementation of the tasks related to the Digital Nation Development Programme
- Expert support for the preparation and implementation of smart city projects
- Ensuring efficiency and transparency for the utilisation of public funds during the implementation of the smart city projects
- Supporting the implementation of sustainable urban smart city projects
- Supporting the creation of interoperable smart city services

National Toll Payment Services Plc.

1. **e-Vignette**

<https://nemzetiutdij.hu/articles/article/e-matrica-informacio-es-vasarlas>

Eligibility for using Hungary’s motorways and chargeable road sections may be purchased electronically. Toll roads in Hungary may only be used with a prepaid e-vignette.

The replacement of paper-based vignettes with electronic solutions offers customers a more convenient and faster service, and it also saves printing and distribution costs. The aggregate value of this saving at the time of introduction in 2007, roughly amounted to HUF 250 million. The Coordination Centre for Transport Development used the amounts thus having become available for road improvements and operation.

2. **eRoad toll**

<https://nemzetiutdij.hu/articles/article/e-utdij>

This is a toll collection scheme based on the actually covered distance, applicable to designated sections of the Hungarian road network (motorways, expressways and main roads), 6,500 km in total. It complies with the EU’s technological requirements, and it is compatible with the European Electronic Toll Service (EETS).

National Toll Payment Services Plc. (NTPS), celebrating its fifth’s anniversary this year, and the HU-GO system supporting the toll payment of vehicles heavier than 3.5 tons have welcomed their one hundred thousandth customer.

Lorries heavier than 3.5 tons covered more than 15 billion kilometres on the Hungarian toll roads in the past five years. This is roughly hundred times the distance between the Sun and the Earth.

In November, 35,300 of registered HU-GO customers used their OBU on board unit, key to toll payment, at least once.

On the whole, the vehicles heavier than 3.5 tons covered 264 million kilometres on the Hungarian toll road network in November 2018.

<https://nemzetiutdij.hu/articles/article/szazezer-ugyfellel-szaguld-a-hu-go> (2018 Q4)

Revenues from tolls payable by lorries, to be adjusted early next year, will be utilised for the renovation of public road sections leading to small settlements.

As a result of changes introduced in 2019, surplus funds from the collection of tolls of roughly HUF 40 billion in total at annual level will be allocated to the village road fund.

<https://nemzetiutdij.hu/articles/article/itm-utdijbevetelek-is-gyarapitjak-a-falusi-utalap-forrasait>

To date, NTPS sold roughly 290,000 annual national and 790,000 annual regional vignettes.

“The regional e-vignette remains the hit product of the season, but an increasing number of customers purchase the national version, permitting longer journeys. We sold 2 percent and 9 percent more regional and national e-vignettes, respectively, than in the previous season.”

<https://nemzetiutdij.hu/articles/article/tul-az-1-millio-darab-eves-matrican>

Last year, NTPS collected road tolls in the gross amount of HUF 315 billion, exceeding the previous year’s revenue by 6 percent, thereby achieving a new revenue record.

Last year, the gross revenue from toll paid in the e-toll system by lorries over 3.5 tons amounted HUF 234 billion, 52 percent of which was paid by non-nationals. Drivers purchased 14.5 million e-vignettes for vehicles under 3.5 tons, mostly for cars, in a gross value of HUF 81 billion.

<https://nemzetiutdij.hu/articles/article/rekordosszegu-utdij-folyt-be-tavaly> (data from 2018)

By the end of August 2019, e-vignettes were purchased on 250,000 occasions, while e-toll was paid in 500,000 cases on the websites of NTPS, in the total amount of HUF 50 billion. Based on the experience of the first eight months, vignette purchases on the interfaces of NTPS rose by more than one third (37 percent) and the number of e-toll transactions paid by heavier vehicles was up by more than one quarter (26 percent) year on year.

<https://nemzetiutdij.hu/articles/article/csucson-a-webes-utdijfizetes>

The public transport agency of Kragujevac (GSA) and NTPS, in charge of collecting e-tolls in Hungary, signed an important memorandum of understanding. According to the memorandum of understanding, the parties will commence negotiations on smart transport developments in one of the most dynamically developing cities of Serbia.

<https://nemzetiutdij.hu/articles/article/intelligens-kozlekedesi-megoldasokat-szallitana-szerbiaba-a-nusz>

In five years, the direct budget revenue from the use of roads in Hungary amount to gross HUF 1,400 billion.

The distance covered by lorries in the e-toll scheme exceeded 15 billion kilometres in five years. In addition, NTPS sold 75 million e-vignettes for vehicles under 3.5 tons; 70 percent of these were weekly vignettes, more than half of which were purchased by non-residents.

This year, a toll revenue of HUF 316 billion is anticipated, compared to HUF 290 billion from last year. According to expectations in 2022, the revenues of NTPS may be as high as HUF 400 billion, which will provide funding for the renovation and maintenance of Hungarian roads, and for the construction of new roads.

The value of the company’s continuously developed IT assets is close to HUF 35 billion. The system operation cost level is 8-9 percent, the lowest in Europe.

<https://uzletem.hu/-statisztikaarak/utdij-ot-ev-15-milliard-kilometer-75-millio-matrica-1400-milliard-forint> (based on data from 2018)