PUBLIC SOCIAL RESPONSIBILITY AND PUBLIC CUSTOMER SERVICE

A proposal to solve two critical social problems
as part of the digital transformation

Balázs Benjámin Budai, Mátyás Gáspár

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Foreword

The success of strategic cooperation in a transnational region depends on the degree to which certain *social, economic and environmental factors* are at almost the same level. And the functioning of the region is to a large extent determined by the functioning of the administration of the country concerned. The EU Strategy for the Danube Region (EUSDR) Priority Area PA9 has from its inception aimed at investing in human resources, in particular to ensure inclusive education, training and the creation of inclusive labour markets. However, achieving these goals is unthinkable without technological improvements and public sector ownership.

In relation to the objectives of the EUSDR, the authors show how the public sector is becoming a key actor in the coordination of cross-sectoral social responsibility and how Public Social Responsibility (PSR) is emerging as a new field of action for public administrations. On the basis of academic research, it is argued that Corporate Social Responsibility (CSR), which has a centuries-old tradition in the business sector, can also be understood in the context of public sector institutions. They show that performance beyond legal requirements and digitally-enabled public customer service in public administrations are an integral part of an increasingly inescapable PSR.

In this volume, the authors examine two critical elements of public customer service, closely related to each other, with an academic background. A proposal to improve general accessibility and human capability to basic services is presented, with a particular focus on the inclusion of groups with barriers to access.

The two projects presented in this volume are good examples of social and technological innovation that complement and support each other effectively. The first is the so called OK (see „everything is all right") Service, which provides direct information, advice, assistance or mediation at the level of the local area - small town, neighbourhood - in all possible situations. The other is the Service Visitor Point, which is a digital channel for this, using telepresence technology (VIVIEN telepresence kiosk) as a realistic substitute for face-to-face administration.

The developments currently in the pilot programme stage offer the possibility of building a national network, in a „bottom-up" project organisation and management solution. The prototype is already operational and a series of information sessions and demonstrations are being organised to raise awareness among potential stakeholders - service providers and user organisations. This process is also facilitated by the present publication, both within and beyond the borders, especially in view of the interest and receptiveness of the public in the countries concerned by the EUSDR.

As the Hungarian representative of the PA9 priority area, I am honoured to bring to your attention this innovative, but describing all the more important issue, which is a demanding and professional publication, in the hope that its readers will contribute to the practical implementation of the solutions presented here.

Gabriella Tölgyes
Hungarian Steering Group Member of EUSDR PA9

Content

Introduction - the message[1]

The publications related to the two priority areas of the Danube Region Strategy (PA9 „Investing in human resources and skills" and PA10 „Expanding institutional capacity and strengthening institutional cooperation") reflect on the results of the research of the National University of Public Service and translate them into concrete proposals. The fundamental aim of our analysis and proposals is to develop the specific capacity and cooperation competence of public administration institutions to ensure people's access to and skills to use basic public and business services.
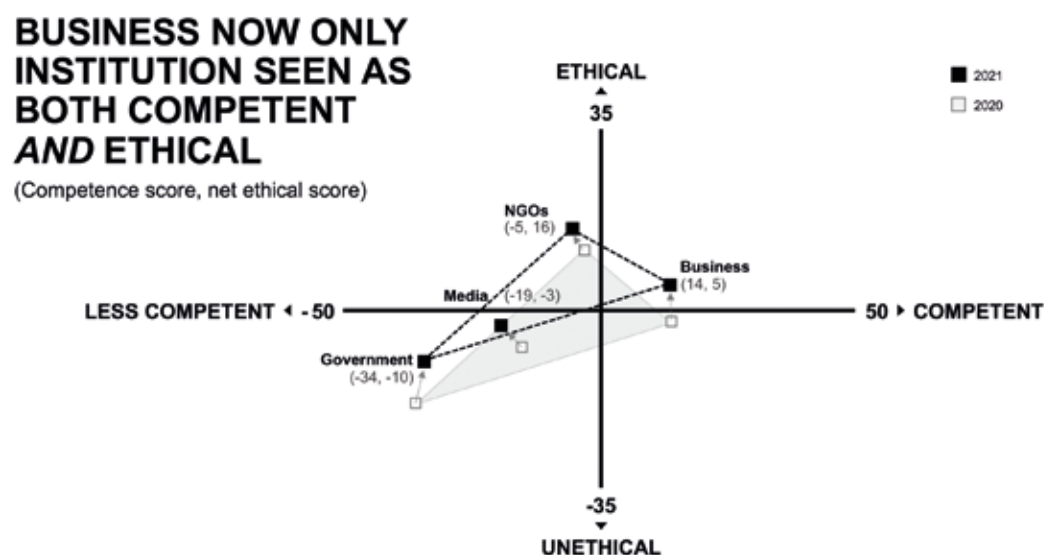
Access to basic services is the most critical issue of our public administration as it moves from a bureaucratic culture to a service provider and then to a desirable community culture. It has been raised as a fundamental issue of social justice by scholars (e.g. Amartya Sen (2)) and politicians, most recently by enshrining the requirement of access to basic services among the 20 principles of the European Pillar of Social Rights (3) at the Porto Social Summit in March 2021.

Fig. 1.

Social inequalities and barriers to access make this task difficult in itself, and the level of public trust in governments worldwide over the last decade may make it even more difficult. The operational standards (competence, ethics) of public administrations are typically much lower than those of business and civil society services (see Fig. 1. from (4))

Our research on ethical background has brought to the surface the issue of social responsibility in the public sector. We have found that the public administration's public interest activities, which are required by law, are not in themselves a guarantee of social responsibility. There is a ‚grey area' of public sector activity that cannot be legally accounted for, which we have called Public Social Responsibility (PSR). This is analogous to a similar area of activity in the business sector (Corporate Social Responsibility, CSR), which involves a set of joint, cross-sectoral responses to social, economic and environmental challenges.

One of the societal challenges that can be included in the PSR is the prevailing level of public trust, which is crucially influenced by the system of public customer relations in the broadest sense of the term. We believe that there is evidence to support the claim that trust in the functioning and services of public administrations and the quality of service - the ‚client/user experience' - are closely linked. And in terms of impact, it has the potential to significantly improve access to services and, through this, the quality of life of people and communities.

We have identified the two main drivers of the problem as the significant information asymmetry in basic services and the barriers to access for many. In response to these findings, we have developed two closely related solutions - the introduction of an OCIS service and the development of a remote access network - taking into account the pervasive digital transformation process, its potential and its untapped opportunities. The latter - digital transformation - is itself a major challenge, which can be met by institutionalising public social responsibility. One of the conditions for access is, for example, the ability to embrace digitalisation in society and to promote its development.

Governance and public sector challenges - local government responses

Our basic finding is that the tasks of central and local government and the public sector as a whole, or simply of public administration, cannot be solved by strictly carrying out the tasks prescribed by law. The legal framework, the rule of law, is necessary but not sufficient to meet the social, economic, environmental and technological challenges. This can easily be seen from a simple overview of the factors influencing public administration, without any in-depth analysis.

The World Economic Forum's Strategic Intelligence service continuously monitors world trends, challenges and solutions (5). The Agile Governance trend map (see Fig. 2.) provides a detailed overview of the challenges facing public administrations today, and puts them into the context of the domestic situation.

Fig. 2.
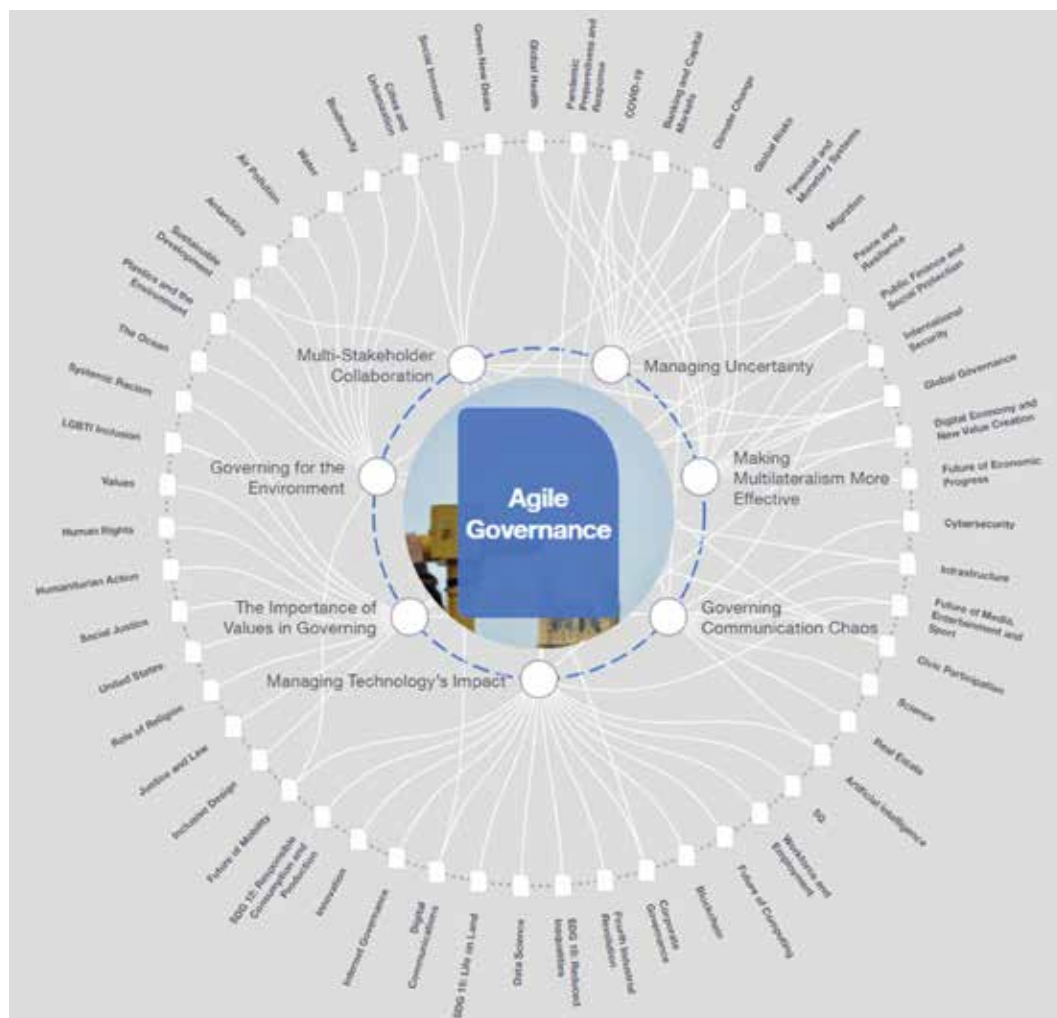
Let's review these in headings (not in order of importance):

- increasing uncertainty
- increasing complexity
- information chaos (infodemics (6))
- climate crisis
- globalisation vs. localisation
- digital transformation
- new economic, business models
- new employment systems
- value crises, conflicts
- stagnating, weakening public confidence
- pressure to cooperate
- political turbulence
- weakening democracy
- an ageing society
- unequal opportunities
- migration

In public administration, the municipalities closest to the people play a key role, as far as our topic is concerned. Good local governance is the right response to these challenges, meeting the requirements set out in Fig. 3. It is perhaps no coincidence that the definition of these criteria has become the subject of academic analysis in recent years. The growing importance of public customer service in public administrations can be clearly deduced from the individual requirements, and this is broadly confirmed by the trends and challenges involved. The detailed explanation and content analysis of both sides, in terms of their links to customer and public relations, indicates the strategic objectives and directions for development. Among the trends and challenges, some factors that are significant for public administrations and local authorities, some of which offer new and exploitable opportunities for innovation, such as the need to develop local economies, digital transformation, the emergence of social public responsibility and the new localism (7) mentioned above, are also becoming dominant.

Today's shocking actuality - COVID 19 - the epidemic has accelerated certain trends and has demonstrated, by creating situations of extreme urgency, how critical the functioning of the public customer service can become in resolving various life situations, in the - not infrequently - fateful shaping of destinies. The perception of the seriousness of the virus threat, the effectiveness of the means of protection, the manifestations of cooperation and solidarity, the evolution of the attitude towards vaccination, were all decisively determined by the public customer relations and quality of it's services.

Fig. 3.

THE MOST BASIC CRITERIA FOR GOOD GOVERNANCE

- DEMOCRATIC
- SERVICE ORIENTED
- RESPONSIBLE
- EFFECTIVE
- INCLUSIVE
- TRANS-PARENT
- ECONOMICAL
- LEGAL
- FUTURE ORIENTED
- ETHICAL

Good governance requires stakeholder participation, which is both democratic and effective requirement. Whereas previously this was considered to apply only to governance of society, to the public and civil spheres, more recently the business sphere is also moving in this direction of participatory capitalism (8), with the development of joint or community innovation, planning, development, production and service. In the field of the organisation of public services as an administrative task, the two development trends overlap. Civil and customer participation in public affairs and public services is a critical factor for good governance, and its importance is growing as a result of various trends. Public administrations and local government services are conceived and organised as a system of internal and external services.

Transparency is both a democratic requirement (use of public money!) and an efficiency issue. There is no need to argue for legality, as it is self-evident, but a certain level of exposure to corruption and legal uncertainty should be emphasised. Compliance with ethical requirements is known and present in the national public administration, with the mandatory application of codes of ethics. Compliance with future-orientation is not easy in the above-mentioned circumstances (e.g. increasing uncertainty, complexity), and is pushing public administration towards so-called real-time, dynamic strategic management. The traditional requirement for efficient resource management can no longer be met by the methods of the past, e.g. necessary but not sufficient austerity. The organisation of public services is becoming increasingly intertwined with local, regional and wider economic relations, particularly in areas of shared, sector-wide social responsibility (see below). Inclusiveness is partly about solidarity with disadvantaged people and groups and partly about involving them in decisions and actions. Finally, as indicated above, social responsibility goes beyond the requirement of accountability.

As we can see, the requirements of good governance are inextricably linked, not only with each other, but also with environmental impacts and trends. Academic research suggests that two factors - social responsibility and the development of public customer service - have clearly emerged as responses to these challenges in the development of public administration in the last decade, and especially in recent years, both abroad and at home. These two interrelated strands of public sector development are discussed in more detail below. Here it is important to summarise and argue how they follow from the trends listed above (see also Figure 4.).

Fig. 4.

TRENDS AND CHALLENGES IN CENTRAL AND LOCAL PUBLIC ADMINISTRATION

- EXTREME INFODEMICS
- HANGLING AFTEREFFECTS OF COVID 19
- WEAKENING DEMOCRACY
- MIGRATION, CULTURAL DIVERSITY
- LOCAL ECONOMIC IMPERATIVE
- THE NEED FOR THE NEW LOCALISM
- DIGITAL TRANSFOR-MATION
- CLIMATE CRISIS
- PSR, PUBLIC SOCIAL RESPONSIBILITY
- WEAKENING PUBLIC CONFIDENCE

The need to assume public social responsibility is demonstrated by the fact that none of the challenges facing public administrations can be tackled and solved by simply carrying out the tasks that are imposed on them. The following three factors confirm this:

1: Only government - central and local - is in a position to coordinate and organise the essential and emerging intersectoral cooperation. This is still in its infancy in Hungary, with only the germs of institutionalisation visible: e.g. the 2015 Government CSR Action Plan, some central and local PSR strategies, incentive-based CSR programmes and activities in public institutions.

2: The resource system of the public sector and public institutions - we look beyond the all time being limited by a seemingly scarce budget - offers a number of untapped potentials for addressing challenges not only the means of coordination: e.g. data and information, expertise, networking, institutional infrastructure, partnership, planning and

regulatory tools, indirect control over the resources of private companies, legitimacy, and this list is far from exhaustive.

3: Current legislation does not prohibit, and therefore allows, public sector organisations and public institutions to engage in public social responsibility activities. In some cases, e.g. under the current rules for municipalities, this is an explicitly stated authorisation.

As we shall see below, the public customer service, as a field of activity, by its content and nature, maintains and operates a system of relations between the public administration and the actors in its environment. It is difficult to imagine any relationship in one direction or another that would be indifferent to this ‚interface', its services or its quality. On the contrary, the functionality, modernity, development potential and quality of public customer service in its broadest sense are of paramount importance to both sides - the public administration as service provider and the stakeholders and users in the environment - in terms of their own needs.

In conclusion, public administration can only respond effectively to environmental challenges if it takes decisive steps to institutionalise public social responsibility, and one of the key areas of this is the significant development of the content and technology of public customer service. In the next two chapters, we will describe in detail what this means in the current situation of public administration in Hungary and what prospects it offers for its development. In the following sections, we will present two project proposals that have already been launched in practice and which have a significant impact on this development, arguing that their national expansion - as a major administrative and social innovation - can stimulate and accelerate the necessary process of change.

Public Social Responsibility

It seems that humanity is very close to the point where this «socially-sustaining cultural selection mechanism» is now globally needed for survival. This is one of the major challenges of being a «cultural being». Achieving a sustainable society, environment and economy is becoming less and less a ‹voluntary undertaking› and more a shared responsibility and consequent duty of all of us - individuals, organisations and communities. In recent years, national and supranational governments have come to the conclusion that it is no longer enough to encourage business, civil society and individuals to adopt a ‹responsible vision of future› attitude, to line up under the banner of social responsibility. Much more is needed, and public administrations must take the lead.

What is Corporate Social Responsibility (CSR) in the corporate sector is Public Social Responsibility (PSR) in the public sector. Public administration, public services, public interest and public responsibility, i.e. accountability, required by law, are not enough in themselves. The fact that a public institution or public service provider can be held accountable if it violates the public interest (e.g. fails to account for public funds, uses public property for private purposes) says nothing about its commitments and activities to address societal challenges. This is what the public can expect and, increasingly, what the public demands of the public administration, which it is in a position to do.

The National University of Public Service (NUPS) has conducted a two-year research (2017-2018) to investigate and provide evidence on the international and domestic development of public social responsibility over the past decade. It revealed that it unfolds in 7 stages of development:

LEVEL 1: GOVERNMENTS, PUBLIC ADMINISTRATION AS PROMOTERS OF CSR - Governments were at the birth of CSR in the early 20th century, starting the process of influencing the economy to enforce CSR principles. The same was not yet the case in the field of self-regulation and -operation (PSR).

LEVEL 2: INSTINCTIVE PSR ACTIVITIES - Research has clearly demonstrated that public institutions, in addition to their mandatory tasks, almost constantly perform PSR activities without managing them as such. The motives for this are varied and often purely personal.

LEVEL 3: COOPERATION IN PSR ACTIVITIES - In a partnership system of democratic public administration and open governance, and particularly in cooperation with economic operators, it is natural that public bodies should become active players in the implementation of CSR activities.

LEVEL IV: GOVERNMENTS ENCOURAGE ECONOMIC CSR - Research has shown through comparative studies of a number of countries that governments in developed democracies have a wide range of policies, programmes and services to encourage economic actors to deepen their CSR activities.

LEVEL 5: THE STATE AS A CSR COORDINATOR - At this stage, states recognise the importance of CSR in relation to their public responsibilities and are taking the initiative to ‚engage' in cross-sectoral cooperation, sometimes using budgetary resources to implement coordinated programmes that also cover their own operations.

LEVEL 6: INSTITUTIONALISATION OF PSR - Public sector institutions, especially local authorities, are taking on a new sense of voluntary tasks and activities, gradually becoming aware of and integrating PSR into their operational systems. Partnership systems are taking on a new dimension and institutional framework, and synergies between intersectoral cooperation are being strengthened.

LEVEL 7: STRATEGIC DIRECTION AND VISION - As a result of the research, several processes have been identified that point towards the emergence of a so-called Global Social Responsibility (GSR). In this, CSR and PSR, as well as Individual Social Responsibility (ISR) based on volunteering, are being combined and integrated. Where the development of CSR/PSR is supposed to be heading, or should be heading, is answered in a way by Guy Dauncey's work (9), the first original edition of which dates from 1988, and which, without referring to CSR or PSR, describes in its many contexts a social responsibility system that has essentially fully developed at global, national and local scales. It is a vision of global social responsibility (see Fig. 5.).

Fig. 5.
Global Social Responsibility

PUBLIC PSR	CORPORATE CSR
GSR	
CIVIL – COMMUNITY CCSR	INDIVIDUAL ISR

The public administration recognises several types of responsibility for the consequences of action or inaction, according to their content. Among them, a kind of well-defined pyramidal hierarchical order can be observed (see Fig. 6.). Each level of responsibility may be interlinked in a specific way (e.g. the economic may be part of professional responsibility, the disciplinary part of legal responsibility, the political part of ethical responsibility and the latter part of social responsibility). But these possible „inclusions" never constitute a complete coverage. There is always something extra in the higher level of responsibility. A significant difference is that, as one moves up the pyramid, the way and the stringency of the accountability arrangements change significantly. Currently, societies and their legal systems tend to view social responsibility as a historically evolved voluntary commitment. However, the NUPS research has also shown that there is an interesting process of moving from voluntary to obligatory social responsibility. The first step is the introduction of reporting obligations and reports on corporate social responsibility to complement budgetary reporting.

Fig. 6. Pyramid of responsibility

SOCIAL
ETHICAL
POLITICAL
LEGAL
DISCIPLINARY
PROFESSIONAL
ECONOMICAL
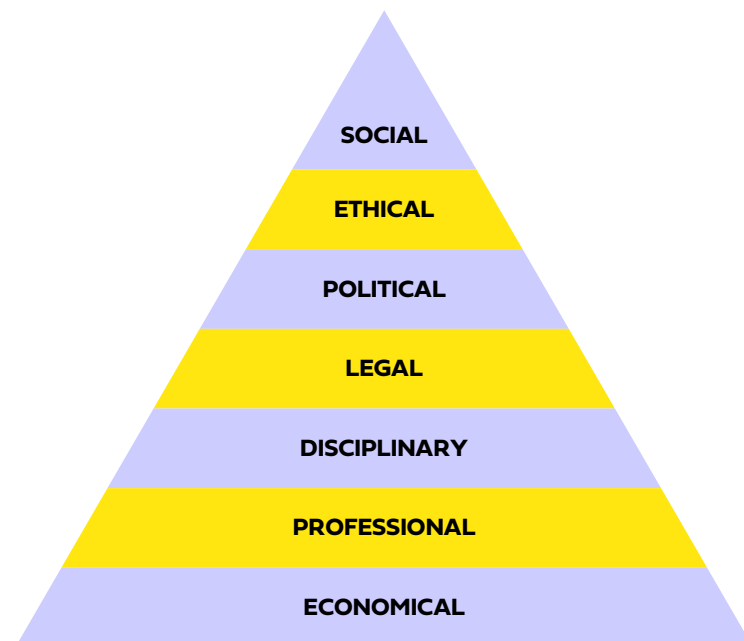
Public social responsibility can have a variety of contents in relation to society, the economy and the environment (see below), and these can arise in two main ways:

DO NO HARM - Any given action by a person, organisation or community may create value, result in benefits, even be beneficial by design, but there is a risk that it may be harmful to someone else (or even to the actor), including the environment, as an unintended consequence.

LET'S DO MORE - Every person, organisation and community has the opportunity to do more than they are obliged to do to address social, economic and environmental challenges because they are in a position (e.g. see what others do not), have resources (e.g. time to volunteer, to cooperate) that are not fully utilised.

Fig. 7.

Externalities in public administration

Originally an economics concept, externalities are economic (so-called spill-over) effects, where market actors cause benefits or disadvantages (costs) to non-market actors. In public administration, it can also be understood as rules, decisions, measures and procedures that have unintended, distant effects other than the original objectives. For example, an investment in the public interest, the entry or exit of the state into or out of a given territory, frequent changes in legislation may have unintended effects which can be treated as externalities in impact analyses, even if they are supported by a cost calculation or a methodological basis. Public trust and social cohesion can also be sensitive indicators of such distant effects, both positive and negative.
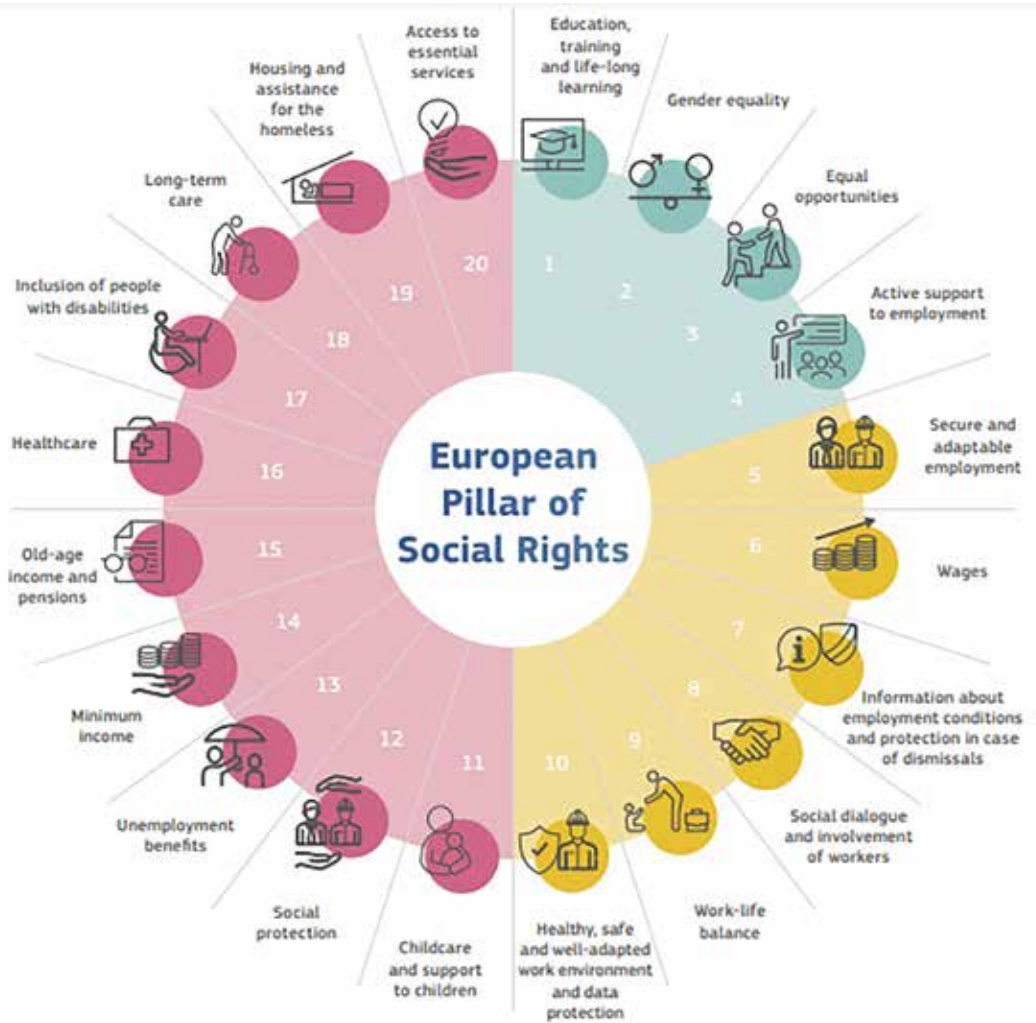
Access to public services, and to basic services in general (some of which are available to users on a commercial basis), is part of public administrations' social responsibility. Indeed, the right of access does not automatically guarantee access to even the most obvious basic services (e.g. clean drinking water, air, public information, transport, employment). Declarations and laws at various levels proclaim the substantive or fundamental right to basic services (see the diagram below on basic social rights), but the public sector alone is not always able to enforce these rights in all areas, despite the necessary legal mandate - sometimes even the obligation - to do so. Tackling the most diverse social and economic inequalities is therefore a topical issue of public social responsibility.

Fig. 8.

Fig. 9.

Looking at the European Pillars of Social Rights (see Fig. 9.) presented at the Porto Social Summit in 2021 and the related 2030 Agenda for Action, we find activities related not only to the 20th Pillar of Social Rights, but to almost all of them, which can be included in the scope of global social responsibility, and within this, in the scope of public social responsibility.

On Pillar 20, the Action Plan states, among other things, that *„Effective access to basic services of adequate quality, such as water, sanitation, health, energy, transport, financial services and digital communications, is key to ensuring social and economic inclusion. These services can also be an important source of job creation. However, income, age, territorial disparities and lack of infrastructure can make access difficult. Investing in green, digital and social infrastructure, including through EU cohesion policy, will help prevent and combat spatial segregation and improve access to quality public services. Sectoral EU policies and regulatory frameworks for services of general interest, including consumer protection measures, public procurement practices and minimum service obligations, should continue to support Member State interventions and contribute to improving access to and availability of essential goods and services."* (3)

It can be seen that this requirement can only be implemented in the operation of individual public administration institutions and service providers if they systematically consider and examine the full range of their activities and, in the broadest sense, their resources and capabilities, in the light of the principles and content of public social responsibility. Some national central public institutions and local authorities have developed so-called PSR strategies or equivalent documents, action plans and reports (10).

By analysing the conditions for ensuring the widest possible access to basic services, we can identify the most critical points of the solution and translate them into PSR strategies and action plans. This is the most consistent way to institutionalise public social responsibility in public sector organisations, which will inevitably happen over time. The need for more of the basic public services and for them to be provided locally to the public using them is, in some cases, quite obvious. It is also self-evident that material resources may be limited, despite political will, legal mandates, good intentions and good planning. But - and this is where the scope for public social responsibility comes into play - can we rest easy in this situation, or are there other ways, other means, some other path, some not sufficiently recognised, consciously avoidable obstacle, some unexploited opportunity, which might nevertheless be able to improve the situation?

Yes, there are! Here we take stock of the conditions and show how they can be mobilised to improve access to basic services:

- better information of people about the options,
- people's better ability to access services,
- developing a service solution with economies of scale,
- improving the efficiency of services to make them more accessible to all,
- joining community forces, participation in basic services,
- cross-sectoral cooperation on basic services,
- increasing mobility of basic services,
- better use of the potential of digital technologies.

The systematic exploration and compilation of accessibility barrier maps (Fig. 10.) will help to identify and exploit the above opportunities for given basic services, using specific and creative methods and solutions.

Fig. 10.

Public customer service

Public customer service is a specific administrative function, a field of activity - a set of services - which includes all the activities and their conditions that connect the public administration, and more broadly the public sector institutions, with the public. It is customary to refer to such - relatively distinct - organisations as ecosystems, and to treat them as such, which is a good way of expressing the need for dynamic management of the operational area.

Fig. 11. and 13. illustrate the content and service delivery system of the public administration public service ecosystem. Despite its familiarity, the broad understanding of public service as essential for public management is not yet generally accepted in domestic public administration and local

Fig. 11.

government, which is an obstacle to the institutionalisation of a system of requirements and evaluation of good (self-) governance.

A systematic review of the challenges of public administration trends presented earlier (Fig. 4.) provides compelling evidence of the importance of public customer relations. Taken in turn, public involvement plays a dominant role in virtually all of them. Indeed, a closer examination reveals that this area of public administrations' operations is both a cause and an effect of good central and local governance. If this very broad and complex interface works well, the quality of service to the public will be higher. And good public administrations pay a great deal of attention to developing public customer relations as a function in its own right, and this is one of the measures of its effectiveness and excellence. It is therefore no coincidence that the major international organisations and consultancy firms - e.g. EU, World Bank, Gartner, KPMG, Bloomberg, Deloitte, McKinsey, Ernst & Young, Change Assoiates - have taken notice of this and have started to address the importance of customer relations in public administration and local government and the possibilities for improving it.

In developed democracies, too, the new concept of the public sector, which has emerged from the business world only in recent years, and which - see Fig. 13. - captures the content, results and success of public customer service in the public sector in several layers. The Hungarian equivalents of these terms are still little known in public administration, but are emerging. Their adaptation is only just beginning, but it will certainly be inevitable. The customer (consumer) in public administration will be the citizen or partner, who may be a person, group, small community, organisation, company (11), as a stakeholder in the public sphere.

Fig. 12.
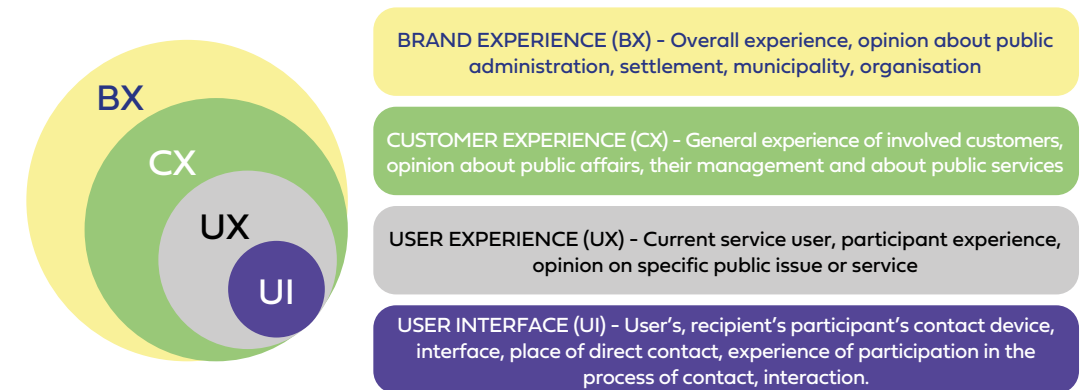
The question is why has public customer service in the broader sense of the term now become so important? This is partly explained by the trends described earlier, the growing expectations of citizens to address these challenges in a systematic and secure way, to avoid threats and to exploit opportunities. But this cannot be done without their responsibility and involvement. As change accelerates, time is pressing. Already, the decline in citizens' confidence in the public sector (public trust) is already well documented, both at home and abroad (12), and the COVID 19 epidemic has added to this. If the public customer service

does not live up to its potential, this crisis of confidence cannot be overcome, with sometimes disastrous, but certainly long-term negative social, economic and environmental consequences for the larger and smaller community where it fails.

The public administration customer relations system has become extremely complex over the last decade, particularly as a result of digital technologies, while at the same time traditional customer and public relations are alive and well and, for a number of reasons (see the barrier map above, Fig. 10.), will continue to be so in the longer term. The public customer relations mission and service delivery system shown in Fig. 13. illustrates the diversity of the operational domain. Its solution not only poses the problem of organising a new and increasingly complex function, but also implies a new quality of public administration culture. This has been the subject of debate for some time, starting with Zoltán Magyary (see Fig. 14. in the box). But it only became a government programme in the last decade, when the Magyary Programme and the Public Administration and Public Service Development Strategy 2014-2020 set the implementation of service oriented public administration as its flagship (13).

Fig. 13.

Fig. 14.

State and local government administration therefore have common aspects in common: this is the - shall we say - technical aspect of the apparatus. But equally important is the other factor for which public administration exists: the people, the public."... „The correct view is therefore that there is a single administration, but it can be seen from two points of view: from above, that is the aspect of the apparatus, and from below: that is the aspect of the public." ... „The local authority is the interface of the administration with the public." Zoltán Magyary, Hungarian Public Administration, 1942.

Magyary was way ahead of his time in recognising the service nature of public administration and the importance of connection with the public. But his expectations have not been realised in the past 80 years, largely for historical reasons. One of the most fundamental factors that complicates the situation and could validate the modern UI-UX-CX-BX approach presented earlier is the slow evolution of the service culture in our domestic public administration. There has not yet been a clear and pervasive cultural shift between the administrative concept of operation (task and competence) and the service delivery system.

However, without this, the importance and nature of the relationship between the public administration and the public, as represented by Magyary, will not make sense, will not become the starting and end point for the development of quality. Fig. 15. gives an idea of the way in which public administrations operate as internal and external service systems. Its understanding, acceptance and practical application has become a critical factor in the development of our domestic public administration. But the goal has been set and the first steps have been taken. It is worth taking stock of how far we have come in this development, so that the specific development solutions proposed and presented below can be integrated into the process.

Fig. 15.
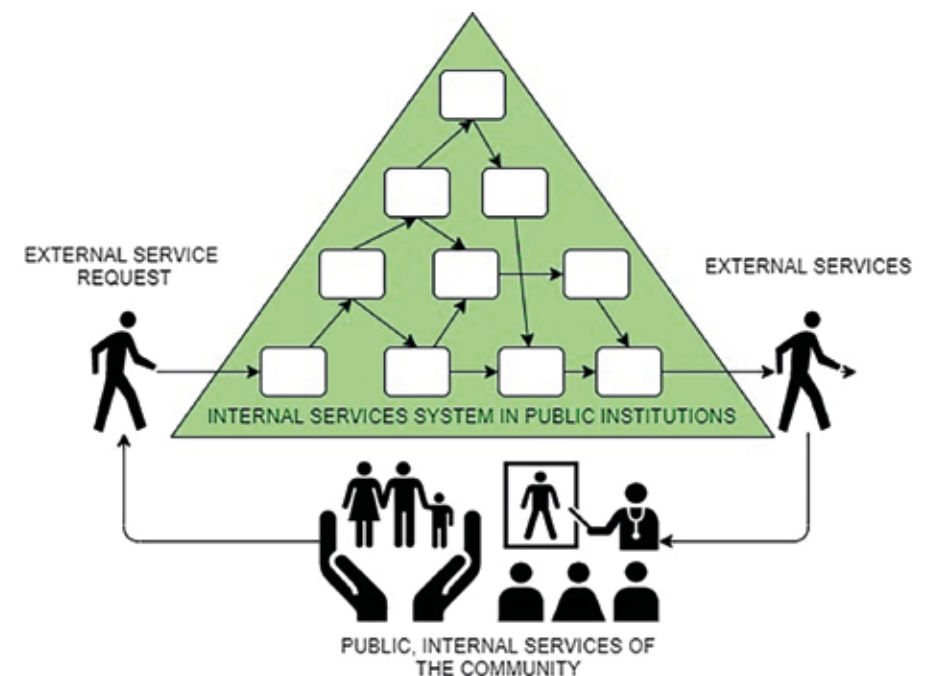
As we have seen, the Hungarian public administration started to understand the subject with Magyary, and a quarter of a century after the Second World War, the customer services (okmányirodai rendszer/ document office system, see below), which are now gradually being integrated as a new, independent organisational and operational area, started to develop mainly by organisational means. However, their potential is far from being fully exploited. Mobile public services and customer service systems (e.g. post office, library, health screening, document office) have also emerged within the framework of traditional organisation to better serve the most disadvantaged and isolated rural communities. With the addition of postal correspondence, personal contacts with customers (e.g. receptions, dispute resolution), group meetings, forums (e.g. village meetings) and the press, the traditional organisational tools available have been exhausted in the field of public administration.

Highly efficient and citizen-friendly improvements in customer relations in the service administration thus began to gradually develop under the previous regime, from the 1970s onwards, with the creation of specialised customer service offices. A process of cross-sectoral integration was also under way, at the level of local authorities (within the organisation) and at the level of central administration in the case of the document office and call centre/ call centre (1818) system. This process has accelerated the professionalisation of customer service and the development of a multi-level training system for this field, which has also created favourable conditions for further cultural and technological development of the new administrative function and specialisation.

The developments of the last decades include the integration of technological support, call centres, digitalisation (interactive, online e-government), a combination of both (contact centre, CRM), multifunctional platforms and mobile applications, which have emerged in „island mode", mostly in the form of independent applications, unevenly distributed in the organisational and operational systems of public administrations and local authorities. There have been some technological experiments here and there with some of the most advanced technologies of their time (e.g. SMS, virtual reality, artificial intelligence applications), but these are still in their infancy and have not taken root and become institutionalised in the domestic public administration system.

An exciting development in organisational development in recent decades has been the emergence of the back office - front office division of labour. Hungary has complemented this with an internationally leading innovation - the end office - by introducing a network system of traditional and electronic helpdesk services in the operation of community access points (Telecentres, eHungary Points, Integrated Community Spaces, more recently Digital Well-being Points). The need for this was justified by the extreme fragmentation of the Hungarian municipal network and, initially, by the strong digital divide among the population. However, the strong start in the mid-1990s did not prove to be sustainable, and the administrative end office network, like the public service system, has not yet been able to develop into a traditional public customer service operation.

Recent years have brought to the surface another significant element in the development of public administration in the country. This is the increasing involvement of citizens in public services and public affairs, and the convergence and organic interconnection of systems, interfaces and tools of public administration communication and customer service in general,

mainly due to the digital transformation (e.g. multifunctional public forums, platforms, applications, social media interfaces). However, this process is still in its infancy in this country, and its strategic, theoretical and methodological foundations, organisational development, professional, content and technological service background are not yet in place (14).

So this is what happened at home. It is worth taking a look at where the world is heading in the field of public administration. It would be good to have a collection of good practice to give us an answer, but we do not have one. This too is a huge debt to the management and organisation of public administration in this country. In this connection, we can also refer to Zoltán Magyary, who 80 years ago warned of the importance of establishing a so-called ‚administrative clearing' system, and the need to systematically collect and share experiences and good practices (15). The aforementioned NUPA (NKE) research has also brought progress in this area, and we have a detailed proposal for solving the problem. The answer - where are the best? - is summarised below (with good practices) in the New Hungarian Public Administration article (16) summarising the results of the research.

- o CLIENT AND CUSTOMER SERVICE OFFICES - The long-established, but not yet fully exploited «one-stop-shop» approach and the concentrated implementation of customer services, including business, is here to stay. These sufficiently integrated systems will open up significant and new organisational, technological, economic (e.g. involvement of utilities and other companies, business involvement) and innovation opportunities, because reaching the public conveniently and efficiently is a common interest of all three - public, business and civil – spheres (17).

- o GOING CLOSEST TO THE PUBLIC - The door-to-door, mobile and other public services, meetings and forums that we are familiar with and use are designed to overcome transport barriers, partly due to distance and partly due to mobility problems, and to provide better and easier access to public services. These solutions may involve volunteers, trustees (e.g. street delegates, public spokepersons), branch/ hosted offices, community venues. The organisation and technical equipment of reception points can greatly improve the quality of service.

- o NEIGHBOURHOOD COMMUNITY SERVICE CENTRES - A specific case of public service closer to the population (see above) is the establishment of public service centres in residential areas. One of their basic aims is to provide a community space for people to meet and socialise, to bring key public and business services as close as possible to the people, and, in particular, to provide communication, advice, assistance, mediation, support and services, with the fullest possible involvement of the people concerned. There are national traditions and achievements in the operation of metropolitan neighbourhood service organisations and rural multifunctional service places (e.g. telecentres), but they have not yet become a widely functioning and sustainable system supporting the public sector. This direction of development holds great potential for citizen-oriented, democratic public administration.

- o PUBLIC CUSTOMER SERVICE DEVELOPMENT STRATEGIES - Based on the overall strategy, the public administration also prepares a public service future

plan among the sub-strategies, in line with other sectoral and sectoral strategies. This may include also PR (Public Relation) and civil strategies. Their target systems may include objectives and commitments that were included in the customer and public service charters that were also known in Hungary, but were not consistently implemented and were completely discontinued in 2010.

o PUBLIC CUSTOMER EXPERIENCE APPROACH - Adopting the UI, CX, UX, BX approach described above and based on it developing and systematically applying public customer service in the public administration, municipal and local government operations, with special attention to the technological implications. The latter will make it particularly important to develop channels, tools and data, analysis, continuous feedback and evaluation systems for the success of the public customer relations and the success of the operation. Their role becomes crucial in the development of the above-mentioned public customer service strategies.

o CIVIC ADVISORY SERVICE NETWORK SYSTEMS - An outstanding practice in the field of traditional organisation is the UK-wide Citizens Advice Bureau (CAB), a UK-wide network of general citizens› advisers, which has been operating and developing since 1938; providing assistance on all possible issues, and more recently has been effectively supported by digital technology, and which has been successfully adopted by many countries. In Hungary, too, there was an attempt - unfortunately unsuccessful - after the change of regime (18). Most recently, Budaörs has launched the OK Service (OKÉ Szolgálat) with a similar aim, which could well develop into a similar, modern national network with many endpoints (more on this in detail below). The main assets of this solution are: a very extensive network, vast experience in public service, a very strong back-up service system, and a contribution to solving system problems encountered during consultations.

o CALL AND CONTACT CENTRES - Call Centre, Contact Centre, Consumer Relations Management solutions are increasingly exploiting the potential of the telephone, which has been available for over a century, in the public service sector with the support of digitalisation. From national solutions (e.g. 1818 - Hungary) to more advanced systems (e.g. 311 - USA), they also function as locally specialised municipal or regional applications, exploiting the potential of network services (e.g. HelpDesk, shared databases, automated answering) and the extensive involvement of partners. These developments, as in the case of public customer service centres, will make a significant contribution to the development of the specialised culture, organisation (e.g. non-stop service) and technology (links to online service) in the area.

o INTEGRATED MULTICHANNEL COMMUNICATION - In addition to the traditional public service communication (e.g. face-to-face, group, postal, telephone), more and more technological channels are being used. These systems (mobile phones, live chat, chat-bots, digital assistants, video, online, social media, electronic payments, signalling systems, as discussed in more detail in the technology section), coordinated and interconnected with each other and with the digital backbone, allow the public to interact with public administrations through all possible means, including the most appropriate ones.

o EXPERIMENTING WITH THE LATEST DIGITAL TECHNOLOGIES - Digital transformation is enabling technological progress to be made so rapidly that new tools and solutions are created in collaboration with the user, almost live, in the field (co-creation, co-production). More and more living labs (LLs) are appearing in public administrations, and some municipalities have even given the area a name: G2C, or Government to Citizens - new technologies (see next section for more details) are available not only for testing but also for further development.

o TECHNOLOGIES FOR PARTICIPATIVE GOVERNANCE - In the context of public customer service, the more narrow customer service technology is complemented by specific technological tools and systems for citizen participation, engagement and open government. In this context, the most relevant platforms are multi-functional online platforms for public engagement - governance, democracy, innovation - with a range of interactive support technologies (2D, 3D).

o NETWORK COOPERATION AND BACKGROUND SERVICES - In the joint development of local and municipal public customer service systems, service delivery and evaluation of results, shared network services (so-called «network services») are starting to emerge at national and international level (Good Practice Communities): benchmarking systems, training programmes, research, publication of textbooks and methodologies, good practices supporting service delivery in general and in relation to specific technologies (e.g. most recently blockchain), knowledge management services based on databases. Public administrations participating in such networks can gain access to reliable public customer service experience and transferable solutions, as well as services that can be delivered to their own audiences, in a very cost-effective and efficient way. Occasionally, research and training organisations, consultancies and tech companies also create such communities of developers and adopters.

We can even consider the above solutions and good practices of the best of them as a kind of public customer service vision and build our strategy on it, if our own circumstances and possibilities allow us to set goals along these lines. The considerable tension between need and opportunity is also palpable in the domestic and, one might say, the general international context.

What will the digital transformation bring?

The public, business and civil sectors satisfy themselves and each other with traditional and digital services. Figure 16 places public customer service in this approach within the G2C conceptual framework, which provides a broader framework that may be needed to understand and interpret certain technological contexts. When we talk about the opportunities of the inevitable digital transformation, we need to understand them in this broader context. A particularly new element and essential to the technological development of public administrations is the unfolding of the ‚C' element and its associated threads, which is community informatics (19). It is not possible to go into its content in detail here, so we will simply note that our project proposals are closely linked to community-led, community-supported social innovation, where digital transformation is a key factor. In this section, we answer the question posed in the subtitle by looking a little ahead. We situate the technology of our project proposal 2 in the broader, visionary digital ecosystem.

Fig. 16.
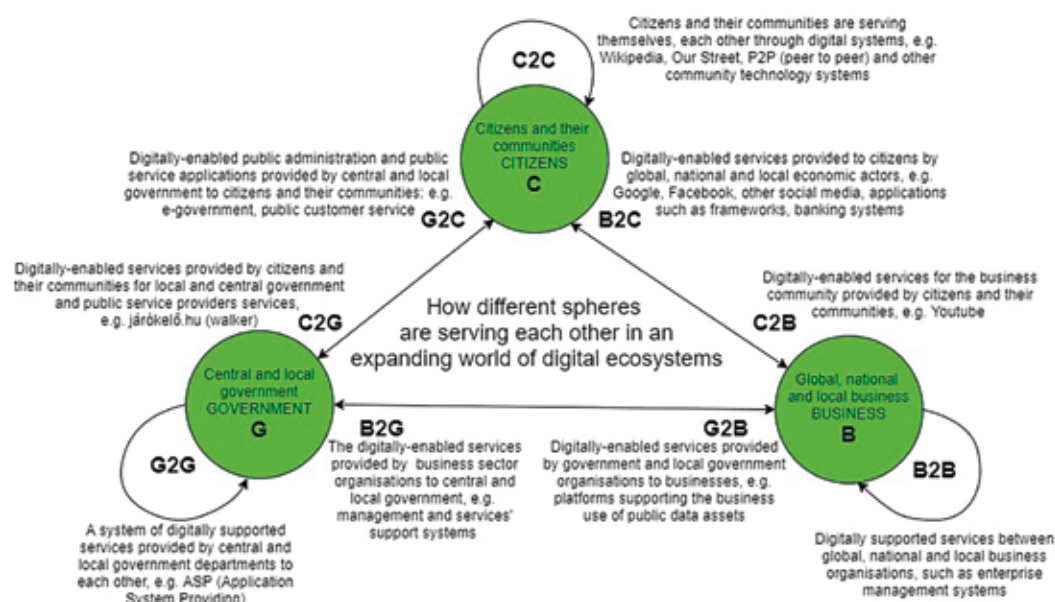
The strategic importance of digital transformation

One of the laws of the digital ecosystem is that the success of digital transformation (broadly speaking, the transition to digital) is determined by the development of public services. If public services are not sufficiently developed and do not adapt to technology at a good pace, the development of services in the competitive and civil sectors will be held back, as it will not create the environment in which all sectors can benefit. It is therefore very important to keep up to date with technological innovations, highlighting those that

we see as feasible, and in some cases even implemented, for direct use in public administrations through best practices.

This is why the European Union's strategy for 2019-2024 (20) aims to turn digital transformation to the benefit of citizens and businesses, while strengthening its digital sovereignty (based on its own data, technologies and infrastructure). The strategy, which aims to make the current decade Europe's „digital decade", sets out autonomous actions in areas such as artificial intelligence, data strategy, digital services and digital skills. This has been reinforced by the Berlin Declaration on Digital Society and Value-based Digital Governance, issued under the German EU Presidency on 8th December 2020, which identified 7 priorities for achieving digital governance, including digital inclusion, interoperability and digital sovereignty, also the value-based, people-centred AI systems (21). It is not by chance that these priorities emerge: AI can be used to build automated decision support and operations, and proactive services based on them, with ergonomic interfaces and multilingual communication. This will require a broadening of the digitally skilled layers that can use (and operate) it, and the sovereign operation of these systems independently of overseas technology providers.

These efforts are reflected in the country rankings - measured by composite indices - what measure the performance of the state from different perspectives, where the progress in digitalisation is high. Not to mention indicators that specifically measure the level of digitalisation. The best known and accepted of these is the DESI - Digital Economy and Society Index (22).

DESI has been measuring the digital development of EU Member States since 2014. The index is not static, and as the focus changes, so do the dimensions and indicators. While before 2020, the ranking was based on 37 indicators in 5 dimensions, from 2021 onwards, 33 indicators in 4 dimensions will constitute the digital ecosystem indicators (22). Hungary is in the bottom quarter of the EU ranking: it is lagging behind in e-information exchange, open data, digital public services for businesses, human capital, while infrastructure indicators and e-government users are improving. The eGovernment benchmark, based on the user-focused nature of eGovernment services, their transparency, core support services and cross-border nature, places Hungary in the bottom third of EU Member States (23).

A different approach is used by the Doing Business Index, which ranks competitiveness across countries based on the bureaucratic barriers to doing business. Here we see a slow catch-up over the last two years, but there are a number of areas where the lack of (or delay in) digital transformation of public administrations is holding back business performance (24).

A number of other indicators reflecting the success of digital transformation of public administrations confirm the above (EGDI, GCI, G@G, etc.) but due to our scope constraints we have to refrain from describing them in detail, but we do indicate that these indicators point in the same direction as to the necessary/recommended moves.

Taking into account the EU strategies and the indices mapping them, and incorporating their objectives, the Hungarian Government is currently setting out the directions of action in four strategy documents, which (also) formulate the requirements for public customer service.

o The Digital Wellbeing Programme 2.0 (DJP 2.0) study focuses on the development of digital services and digital competence development as a prerequisite for accessing these services, highlighting actions that can be implemented and accounted for.

o The National Digitalisation Strategy has identified digitalisation targets for the whole digital ecosystem to be achieved by 2030. This working paper aims to increase the current 57.% of the „Digital Public Services Indicator" to at least 75%, an impressive vision that requires the use of Artificial Intelligence tools.

o The Strategy for the Development of Public Administration 2021-2027 (a re-newal of the previous similar one, which is currently under discussion), appro-aches the digital challenges and responses from an administrative perspective. It is expected that two of the four strategic actions will specifically address the improvement of the quality of public services and the development of electronic support for these services (i.e. building the Digital State). The focus will be on the harmonisation of databases (interoperability), IT support for processes and further - radical - simplification of administration (reducing the burden on the customer). In the area of e-administration, the paper also mentions the video technology based e-administration services and the possibility of using artificial intelligence and automation (25).

o Although the main objectives of the Artificial Intelligence Strategy of Hungary are also related to the digital ecosystem as a whole, and thus public services are often indirectly affected, the relationship between artificial intelligence and public data as-sets is mentioned, which has an economic stimulating effect if optimally combined. Also highlighted are customer service development issues and their impact on quality of life, in all sectoral aspects. The symbiosis of these two areas is also reflected in an indicator, as a strategic goal is set to achieve 60% of administrative transactions in an electronic, self-service mode by 2030, which implies the integration of AI-based tech-nologies. The section on the „Data-driven service state" aims at integrating AI into public administration technologies to increase the efficiency of processes and new channels for service delivery. It lists here a taxonomy of areas that can be supported by AI for automation, such as:

– the deployment of a chat-based digital one-stop shop,
– contact automation for mail, chat and telephone customer contact processes,
– increase the number of cases covered by self-service process automation,
– further development of the Central Identification Agent (KAÜ),
– the development of the possibility to handle cases through KIOSZKs and physical robots in selected customer premises,
– the development of automated decision making functions,
– support for the online labour market and competency-based mediation,
– introduction and development of predictive and prescriptive data analysis systems,
– development of simulations for modelling decision situations,
– the development of software robots for the automation of linguistic processing tasks,
– the introduction of technologies for smart city services (26).

The interfaces briefly presented below - non-traditional technologies for online public cus-tomer service - are therefore not theoretical experiments, but solutions closely aligned with international and national strategic directions.

Solutions based on Artificial Intelligence (AI)

AI is a horizontal umbrella category that cannot be limited to a single domain, as it is slowly having an impact on all technologies, including the technologies presented here. In addition, the integration of AI in public administration, as has been shown above, is not only in the front office, i.e. the customer-agency interface, but also deeper: in case preparation, process management, decision support, i.e. the back office. Wherever we look at automation or robotisation through AI, the developments currently available aim to start and progress cases without human intervention. At the moment, all of the factors that are helping to achieve this touch in some way on some of the activities of the public customer civil service:

o Identification based on biometric features (e.g. facial recognition, voice recognition),

o speech understanding (conversion of speech into text), e-speech, speech generators (creation and conversion of text into speech), chatbots (recognition of text content and meaningful response through self-learning and self-improvement of the system),

o development and support of automated decision making as a special form of the so-matic procedure of the CL. 2016. tv. (Ákr., General Administrative Code), public policy decision support (data collection, predictive and prescriptive data analysis, modelling), with a special focus on smart city solutions.

o development of customer service points integrating all this above (KIOSKs) and hu-manoid robots.
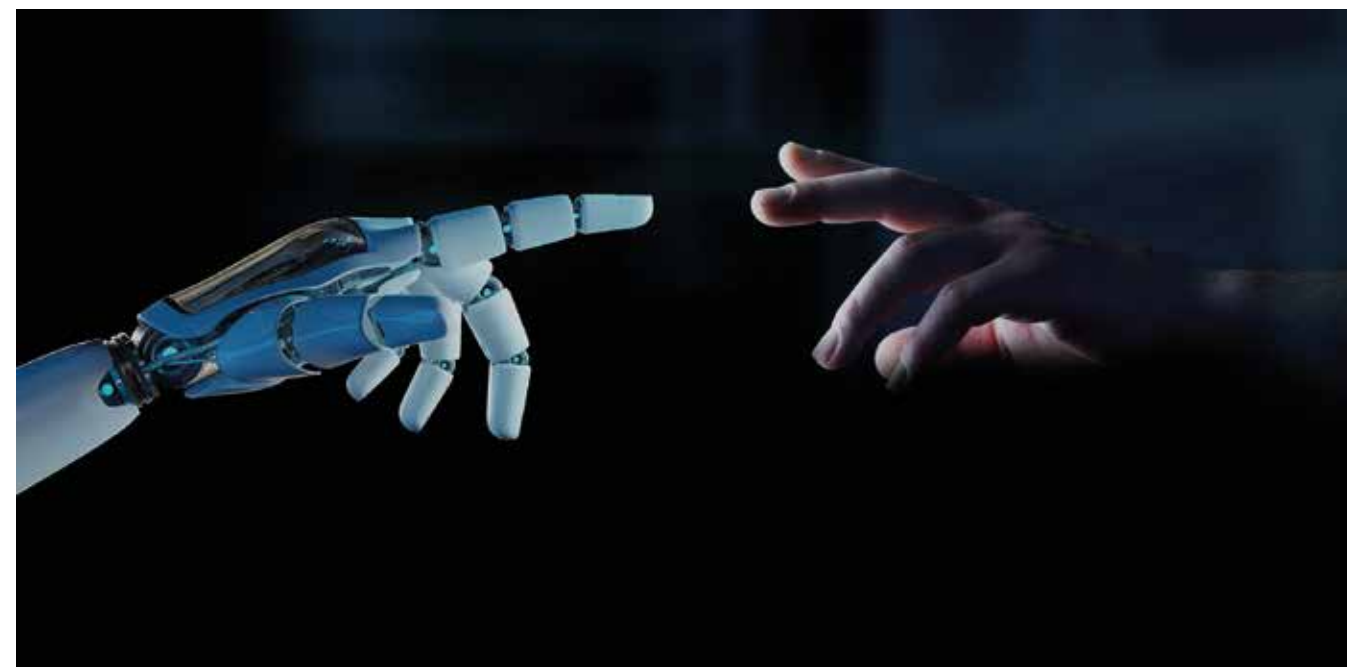
Video-based customer service and e-government services

Video-based customer service and e-government services are now explicitly part of public customer service, providing a convenience solution whose primary mission is also to break geographical and time constraints. The technology is currently focused around four application nodes, namely:

o   Electronic Identification Services: a fifth identification mode, in addition to the currently available Central Identification Agent Service (KAÜ), Partial Code Telephone Identification (RKTA), ePersonal and Client Gateway identification, which uses video communication and highly accurate analytics software to compare the latest image of the customer extracted from the image database with the user's video image in real time.

o   Applying for an ID document and taking the necessary photo online: for procedures that can currently only be initiated in person (such as the ID document), the photo can be taken electronically, via video link, without the need to physically appear, with the assistance of an administrator.

o   Provision of electronic capture of the signature image: For the signature on the document, the client's signature image on white paper is photographed and transmitted to the document application system via video link.

o   Video technology administration combines the positive aspects of electronic and face-to-face administration, as it maintains direct contact without the need for a personal presence, providing the opportunity to ask questions and provide information, thus giving the customer the advantage and confidence in the administration process. The first areas where technology can be targeted are in the submission of applications, statements, taking of minutes, virtual government window services.

An additional public videoconferencing service, which does not require special hardware, is planned to provide an environment for the services.

Telepresence

Going beyond live video, it is also an administrative public service technology solution that extends the range of tools available: e.g. eye contact, face recognition, document sharing, document review, payment, signaling (e.g. health). By using these platforms, people feel as if they are really present and can make an impact in a place other than where they are. They do this using technologies that implement human sensory elements of sight, sound

and manipulation (teleoperation). The technology could already enable personal office and business transactions from the remotest small town in a given community space without transport and IT skills and without the need for personal communication devices. The technology is also available in practice in Hungary, in Budaörs, where it is being experimented with as a living lab, as described in detail in project proposal No 2. Telepresence can also be implemented in a simulated environment. We are then talking about 3D virtual reality or augmented reality systems.

Virtual reality (VR) / augmented reality (AR)

The information superhighway organises information predominantly in 2 dimensions (planes). In comparison, the 3D Internet shows one dimension more, and can sort information in depth (space). Here, we can gradually say goodbye to menu systems, and explore topics and physically perceive options (instead of menu items) according to lifelike - realistic - ordering principles. Although 3D solutions require high computational power and a different thinking approach and routine, there are increasing attempts to place information in virtual space. We see two directions for this: virtual reality (VR)-based and augmented reality (AR)-based systems. Virtual Reality is a three-dimensional artificial world created by a computer environment in which users are replaced by their virtual avatars. While augmented reality involves the creation of a transparent layer of computer graphics „projected onto reality", into which new 3D movable elements (e.g. objects, models, demonstration surfaces, avatars) are „inserted", which are not present in reality, but can be used and manipulated. The solutions have a particular added value in terms of realism and closeness to spatial, physical reality. This is especially true if as many technologies as possible can be integrated on this platform. It is not necessary to learn the organisational logic of an organisation to manage its affairs, but it is sufficient to think logically and use the supporting functions.

Moreover, virtualisation can resolve the issue of the continuous reorganisation of public administration, where the resource demands of physical design put constant pressure on the executive. In Hungary, such an experiment in virtual reality was the Virtual Planet

application (see Figure 22), run in Budaörs, which provided a virtual version of customer service with real administrative functionality. But another Hungarian solution is MaxWhere's 3D Internet, which is gaining a more prominent place among collaborative spaces. The customer interaction capacity of these solutions should also be highlighted, as real-time interaction between the administrator and the customer can be established without the need for a personal presence, with specific interpersonal needs being met. Virtualisation is moving in the direction of holographic technologies, which offers promising prospects, particularly given the potential of holographic displays to enhance interactivity even further, with the right software (27).

Integrated, multichannel communication

In terms of evolution, contact centres, which evolved from centuries-old simple telephone customer services, and then collaborative contact centres, have gathered and are gathering more and more communication channels, integrating them into a multi-terminal CRM (customer relationship management) system. Behind this proliferation of channels is the massive development of telecommunications infrastructure. The potential for 5G bandwidth expansion is making real-time services - once thought futuristic - a reality. Today's advanced customer contact systems already integrate instant messaging, AI-enabled chat-bots, social media connections, video communication, virtual reality/augmented reality interfaces. Behind of these multi- or omnichannel extensions is the goal of customer service to find the most convenient channel(s) to the customer and the channel(s) that the customer uses the most, since in principle and in certain situations any channel can be better (more efficient) than the face-to-face service it is intended to replace. One of many good examples of this can be seen in the Municipality of St. Louis, Austin, USA (16).

Supporting decisions of public and sectorial policies

In Hungary, too, we are increasingly recognising and exploiting the potential of the huge data wealth that is concentrated in public administration organisations. More and more supranational and national data asset strategies and institutions are starting to operate (e.g. in Hungary, the National Data Asset Agency, established at the end of 2020). This surge is driven by Big Data analytics platforms and the data surge provided by IoT (Internet of Things) solutions. In other words, signals from internet-enabled (smart) devices and sensors, as well as citizen-sourced active or passive data services, are providing the data volumes that can create a decision-support environment with the right business intelligence (BI) solutions. These systems can be closed, but also open to citizens who can reuse, analyse, augment and make recommendations from the aggregated data. One good solution is the Data to Decisions - D2D platform, which provides a decision support platform by collecting, managing and analysing complex data from multiple sources (28). It can also be of great importance in public customer service in terms of understanding, analysing and exploiting customer, user and audience needs, actual contributions, problems and opinions.

Blockchain, Holochain

Blockchain technology has already appeared in the public sector, in public services. Its essence is directly linked to the involvement of the stakeholders, the public: a certified, secure solution for the management of documents, data content and related transactions, where there is no central administrator (bank, tax office, land registry, other record-keeping organisations), but data is distributed among the stakeholders, stored in many copies, as a public domain (29), in a way that cannot be changed by anyone. Its application is almost invisible and, with significant savings, it can greatly enhance the security and public trust of data management and, through this, public confidence in public management and public services using such technologies. For example, public and private documents, contracts, text, image and map records, accounts, certificates, licences, funds, vouchers, tendering systems, documented performance, evidence, receipts, warranties, etc. can be managed on blockchain (30). One offshoot of this technology is Holochain, which its developers, with some modesty, see as the basis for the new decentralised Internet (31).

*

The use of these technologies in public administration directly reduces the burden on administrators, reduces the human resources needed for administration, the time, location and time constraints of waiting and customer service, and increases the predictability and reliability of cases, thus improving the positive perception of administration. The need to act quickly is therefore obvious. The 2019 Good Government Report also recognises that face-to-face administration is the most common in the domestic public administration, with the uptake of online channels slow. The main reason for this is the low awareness of these systems (32). The role of the PSR at this point is unquestionable, as it is the introduction of the possibilities on the service and client side that starts the long journey of the PSR on its digital transformation adventure.

Ability and access to basic services
– two major problems and proposed solutions

The legitimacy of the project themes is under-pinned by the „wheel of responsibility" (see Fig. 17), which can be derived on scientific grounds from the work of Amartya Sen cited above. It is through the joint responsibility of the stakeholders - public authorities, busines-ses, citizens (arrow 1) - that opportunities (ac-cess to information and services) can be crea-ted. These opportunities are necessary (arrow 2) to acquire and exercise the empowerment and participation that (arrow 3) can bring about the freedom that (arrow 4) is needed to take responsibility for oneself, the community and society.

Two elements of the „responsibility wheel" - OPPORTUNITY and ABILITY - are the sub-ject of the proposed projects in the given circumstances. The other two, FREEDOM and RESPONSIBILITY, fall under the heading of social responsibility as presented earlier and constitute the general, scientific and practical conditions for the implementation of projects.

The chapter of Hungary's Fundamental Law entitled „FREEDOM AND RESPONSIBILITY" sets out some fundamental rights (which can be interpreted as freedom) directly relevant to our topic, including the following (excerpts, with our own underlining):

o „Hungary promotes equal opportunities by specific measures."

o „Hungary shall endeavour to ensure conditions of decent housing and access to public services for all."

o „The State shall endeavour to apply new technical solutions and scientific results in order to improve the efficiency of its operations, raise the quality of public services, improve the trans-parency of public affairs and promote equal opportunities."

In the previously mentioned development directions of the Strategy for the Development of Public Administration and Public Services for the period 2014-2020 (13), a separa-te chapter - 7.1.4 Development of location- and time-independent public administration services - has given priority to the accessibility of public administration services, which is referred to above as „OPPORTUNITY" and „ABILITY". The document says: ‚In addition to the independence of time and place, it is also desirable to achieve independence betwe-en the different forms of administration. This means that there should be, no distinction between the processes carried out in person, by telephone, electronically at a customer service centre or electronically via the Internet, and that citizens should be able to switch between them at any time they wish."

Fig. 17.

This means that, in line with the relevant EU legislation (see below), the possibility of face-to-fa-ce administration must be maintained in the future, with digital support, making the differences between the physical and virtual possibilities of personal contact increasingly smaller and less significant. Making the fullest possible use of this opportunity for members of disadvantaged social groups and communities will become a crucial area of public social responsibility, in which trade unions can play a critical and decisive role as initiators in the current situation, and can gain considerable social recognition, partners and supporters. The situation is far ripe for the realisation of this goal. Two critical elements of public customer service from the perspective of operational efficiency and PSR are therefore the following and are linked to two closely related and interdependent project proposals of ours:

1) the multiple ability of the client for connectedness, to become an active participant in public relations, as described in the project proposal „OK Service",

2) equal access to essential services for all citizens, in person and without barriers, presented in the project proposal „Telepresence Network".

The proposed projects will enable the public to participate in targeted, effective and safe service relationships and partnerships, both individually and at community level. In prin-ciple, this should also be in the interest of any organisation wishing to provide quality services and engage with the public, using an advanced and quality public administration customer service system.

Fig. 18.

The two types of services of general and public interest
and their relation to the programme (Services of General Interest SGI)
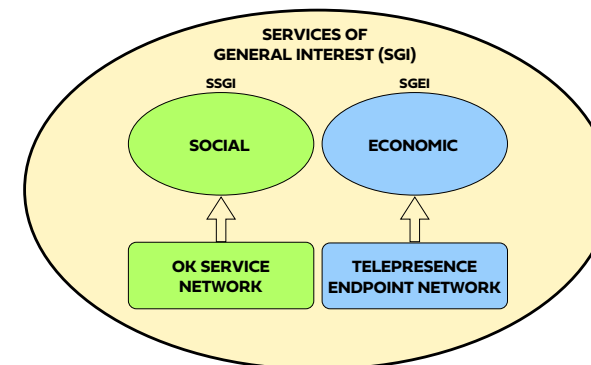
The Commission of the EU deals with questions of economic, social and public services of general interest (33), in a number of regulations on so-called services of general interest (SGIs, e.g, in 2006, 2009, 2011, 2016, 2020, 2021). Fig. 18 is taken from a related guide from 2013 (with our own additions to the proposed projects) (34). From the above, we conclude that the pilots we are proposing are aimed at creating two of these so-called uni-versal services (explained in more detail below). The OK Service is in the social (SSGI) doma-in and the Telepresence Endpoint Network (TEN/TVH) is in the economic domain, namely telecommunications and digital services.

1. Project proposal - Establishment of a national network of the OK Service as part of a universal service system

The basic aim is to help customers - whoever they are, whatever their sector, individual, group or community - to take advantage of the opportunities available to them. This can be achieved in two ways:

- o helping people to take up the opportunity through information, advice, mentoring (35) and other means (e.g. sharing tools),

- o empowerment through training, coaching, mentoring, and the acquisition of competences to use certain personal services independently.

Public customer and other public services' management in different sectors has already had to address these service demand needs, so some elements of it are already in practice. However, the future, particularly in the context of digital transformation, will make this need extremely acute and decisive for both user and service provider. Quality of life, public confidence, efficiency, competitiveness, equal opportunities and, indeed, social peace, are all likely to depend to a large extent on the success of this area.

The core function of the OK Service is to assist and prepare service users to resolve life situations in accessing and using public, business and civil services. It either replaces or helps to acquire the necessary skills to take advantage of opportunities that ensure or improve the quality of life. The individual and societal problem that this service addresses is that, for a variety of reasons, a significant proportion of people lack the knowledge and skills to manage their life situations, which is a barrier to active and effective participation in personal and public affairs (see the barrier map presented earlier, Fig. 10).

The European Union's Recovery Fund provides an opportunity to support the recovery from the consequences of COVID 19 through the so-called Recovery and Resilience Facility (RRF), which will support the necessary investments and reforms to respond to the economic and social impacts of the epidemic, as well as to promote the green and digital transition. Two of the programmes (36) developed are directly relevant to the present programme:

Catching-up municipalities: „Their component actions respond to country-specific recommendations on improving access to basic services and quality education, access to quality preventive and primary care services, adequacy of social services and labour market integration of the most vulnerable groups, but also contribute to the green and digital transition through renewable energy production and strengthening digital competences."

Digitalisation reform for competitiveness: „The COVID 19 pandemic has led to a greater emphasis on e-commerce, with a significant increase in the number of service providers and consumers involved, a diversification of e-services and an increase in the number and range of practices that violate consumer rights. This trend is expected to continue even after the emergency has passed, and it is therefore necessary to provide consumers with an easily accessible, short lead-time, accessible solution to resolve consumer disputes and complaints, and to fully electronify the related back-office processes, requiring personal presence."

Only an original and courageous social and economic innovation can solve this difficult situation by creating a gradual, scalable (i.e. gradually and sustainably expandable) system of new multifunctional information, advice and assistance services, which is currently lacking. What people need in this area, and what the OK Service aims to meet, is the following:

- o timely, targeted, immediate information in a given situation, because people cannot be expected to be generally informed in all possible life situations,

- o to contribute to the elimination of false, misleading information, „help services" that are not suitable for solutions,

- o to „translate" back and forth between „technical language" and „common language", in an empathic and „tailor-made" way, in the interpretation of the life situation and possible solutions,

- o information should be complemented by the necessary help and advice, which actually enables the use of the support service,

- o if help is not available locally, a mediation service to find the best help and follow the case through to an actual, final solution,

- o the primary help service should be empathic, fair, free by default with maximum regard for people's self-esteem,

- o the service should be available in the neighbourhood, in one place, for all issues, regardless of where the actual action or assistance is taking place,

- o the service should work in two directions, in addition to the above, to help service providers with data, feedback, to improve their operational quality,

- o reduce unit costs of service and infrastructure through networking of service points, sharing of resources and experience.
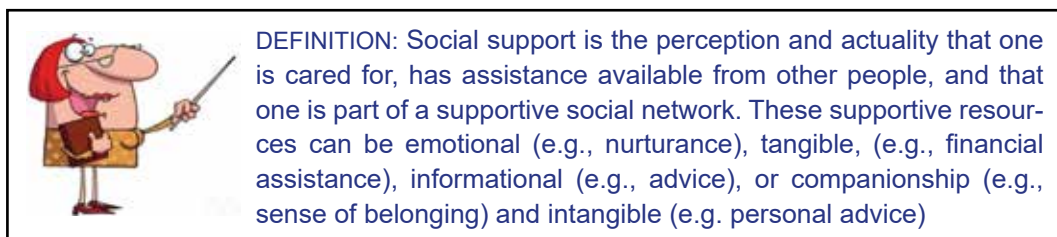
The proposed OK Service has a number of domestic antecedents, albeit not direct, but tangential. The development of independently operating networks of specialised, customer service information and advisory offices, the transformation of document offices (okmányiroda) into government offices (kormányablak), the system of mobile customer assistants and telephone information centres can be regarded as precedents and also function as a kind of preparatory solution for this process. This includes developments in the nearly 30-year history of community access points and networks: telecentres, e-Hungary points and e-Hungarian points across borders, integrated community service spaces (ICSPs, IKSZT), and Digital Well-being points (Digitális Jólét Pontok). The lesson of the historical background is that elements of the solution have already emerged in many respects in the domestic development of public customer service, digital solidarity, which is far from being organic. This story becomes interesting if we add to it all the legal bases, recommendations and plans - some of which have already been mentioned above - that

point in this direction and have not gone beyond the textual framework of the paragraphs and guidelines described.

To define the essence of the OK Service, it is helpful to understand a broader concept and institutional category, namely the social support network (37): a network of people, groups, communities, institutions and their activities, which can be relied upon to meet a wide variety of social needs and to solve life situations. This sociological concept, social institution, is recognised by the state and public administration as a social network created by a system of legal institutions (e.g. subsidies) and public services and organisations. This is a narrower interpretation, because it does not include the individual›s networking activities, and as a result not necessarily involves the family, friends, acquaintances and the multitude of civil helpers, although these can certainly be part of the social network. The OK Service - see below our Vision - can be seen as an integral part of the social support service at different scales from small local communities to society as a whole, depending on the scope and service content it can be built up. Indeed, as shown in Fig. 19 above (38), its services of assistance, mentoring, information and advice, and help brokerage cover part of the functioning of the social support network as defined. A well-functioning network of support institutions, services, social and community relations is experienced as social security with a sense of being cared for and belonging.

Fig. 19.

Social support network

DEFINITION: Social support is the perception and actuality that one is cared for, has assistance available from other people, and that one is part of a supportive social network. These supportive resources can be emotional (e.g., nurturance), tangible, (e.g., financial assistance), informational (e.g., advice), or companionship (e.g., sense of belonging) and intangible (e.g. personal advice)

The interpretation of the OK Service as a social institutional system is supported - beyond our previous references to the pillars of European social rights - by the fact that Hungary has also adopted and transposed the European Social Charter into Hungarian law, which mentions counselling as a social right in general and in specific areas of need. (3) E.g. Article 21: „ensure that everyone has access to appropriate public or private services, namely counselling and personal assistance, which he or she may need to prevent, end or alleviate his or her own or his or her family's deprivation;" However, the specificity of the proposed OK Service is that it is equally involving the public, business and civil sectors. It is no coincidence that the above analysis of cross-sectoral social responsibility has identified this issue - information and advice in the context of basic services - as a common social responsibility theme. The fact is that a single service system of this kind can only be set up with national coverage, reaching the smallest municipality and all the neighbourhoods of towns and cities. Consequently, it should be set up by the three sectors working together and sharing the burden. Our vision, which will be set out below, is based on this conviction.

Our vision was inspired by the system of Citizens Advice Bureaux (CABs) in the UK, which was announced in 1938 and opened in 1939 with 200 service points at one time (plus a mobile CAB, see picture Fig. 20 above (40)), and has since spread to many follower countries (39) around the world. In 2011/12, the service was operating in more than 34 000 residential communities with the help of some 22 000 trained volunteers and in partnership with hundreds of organisations (41). As a matter of course they operate a complementary multi-channel face-to-face, telephone, online and mobile (see larger picture) service system using common databases. In Hungary, an initiative to adopt the English model was launched in the years following the change of regime, and a methodological manual was published to support implementation in Hungary (18). At that time, this attempt was not successful.

Fig. 20.

The vision of the project is a network of continuously evolving residential-level community service places, built and operated in a cross-sectoral cooperation, with a common service and information backbone, a dedicated platform solution, to which user endpoints and service providers can continuously connect with a scalable business model. Each endpoint and service provider of the OK Service Network and Platform will act as a livilng lab, specialising in innovative organisational and technological solutions, which can be rolled out gradually and progressively across the network after appropriate testing. We foresee the mass creation of new endpoints and service points and the mutually beneficial integration of existing information, advice and assistance networks and services.

The fundamental difficulty of the solution is that the service exclusion to be solved, illustrated in the above barrier map (Fig. 10.) and reflected in the user needs expressed, is a „product" of many public administration and economic sectors and specialties, which cannot be solved in isolation, service by service. The burden of enabling people to recognise the need for services, to find them and to use them cannot be borne by individual services individually, because many of them have a public service mission (education, information, counselling, crisis management, etc.). Others, the business part, are difficult to deliver because they are hampered by the ability to pay, economies of scale (i.e. high costs in less profitable market conditions). The very basic service nature of the solution is also a major obstacle, because stakeholders, especially on the business side, are some or very reluctant to take the initial investment risk.

It is therefore necessary to implement a „flagship pilot project" in an intersectoral partnership, largely as part of Corporate, Public or Individual social responsibility, with a specific organisation and financial resources, with the following objectives:

- o   understanding the problem and the task,
- o   to raise awareness of the issue and the possibility of a solution,
- o   launching the development process,
- o   developing the service,
- o   to create a partnership,
- o   setting up service model sites,
- o   creating a common backbone database for the service,
- o   making the solution demonstratable and studyable,
- o   setting up innovation and technology labs (42),
- o   demonstrate sustainability,
- o   define the conditions for scaling up,
- o   developing the extension plan and basic documentation,
- o   creation of a repository of knowledge on the subject,
- o   training a small number of staff,
- o   preparing promotional material on the subject,
- o   persuading a critical decision maker circle.

In May 2021, Hungary's first OK Service Point started its work in Telecottage (Telekuckó), Budaörs. It is emblematic that the institution, which was created in the framework of the nearly 30-year-old telecentre movement, which has gained great international recognition in the field of community access, is the scene of this social innovation. Budaörs has a long history of administrative innovation that has led to this development. In addition to the widespread development of e-government, a series of model experiments and innovations - such as the mobile telephone administration and public area notification system (Járokelo.hu) application, the first artificial intelligence-based customer information, virtual reality-based customer service, a door-to-door and after-hours helpdesk via call centre, e-government mentoring and case help, legal aid service in Telekuckó - preceded the launch of the OK Service (43).

Photo: Matyas Gaspar

The current test run of the OK Service in Budaörs for a few months - expected to last until the end of September 2021 - was preceded by a long period of research. Partly through the scientific analyses of NUPA (NKE) PSR and good governance already described here, and partly by exploring the potential of digital technologies such as telepresence/remote presence and 3D virtual reality. In preparation for the opening of the test site, which was made public in the press (43), documentation was prepared to regulate the service and to analyse the test and gather information for further development. Following the example of good practice abroad, the involvement of volunteers in the operation and development of the service has been initiated and will be progressively extended.

The OK Service provides services through traditional channels - in person, by telephone - and the more common digital channels (website, Facebook), and is a living laboratory for two additional technological applications of public administration. One is the use of telepresence technology. This solution, which is already being tested in practice, will be presented in the next project proposal 2. The other, which was experimented with in 2012 (44), is 3D virtual reality customer service. In the meantime, this technology has evolved tremendously, and perhaps in a decade's time this solution will not be as premature and unusual as it was when we first experimented with it. The world trends promise that (45).

COVID 19 has severely restricted its opening hours until the beginning of June 2021, but close to 100 case studies have been written and the database of potential partner helplines is growing. Regular presentations are organised for practitioners, municipalities and potential service partners, paving the way for them to get involved in the network development programme. We would like to link the programme with the Digital Future Municipalities Network (DJTH) (46). In addition, we will promote this social innovation in all possible ways through articles, publications, social media, video and traditional professional conferences. We plan to raise the profile of this topic in September-October 2021 through a high-level professional workshop on the technological development of public customer services.

2. Project proposal - Deployment of the national telepresence network as part of a universal service system

Although the two projects - which are already in test operation - can be managed independently, their effectiveness is mutually and significantly enhanced if they complement each other. As we have seen above, the OK Services network must have user and service endpoints that act as living laboratories, coordinating social and technological innovation in a creative way to seek new opportunities for the whole network.

The practical application of telepresence technology in the OK Service of Telekottage (Telekuckó) in Budaörs is one such example. The starting point of its necessity is the conviction that personal - face-to-face - customer and audience contact will remain necessary in the future, despite the online, automation (see: the rise of artificial intelligence) opportunities of digital transformation. Indeed, certain circumstances make it even more important. This assumption is supported by a growing body of academic analysis on the subject:

- o Digitalisation will take over the tasks that can be algorithmised or replaced relatively easily by artificial intelligence and machine learning, mainly routine tasks, and this will be a longer than expected more than ten years process. Non-verbal communication will not be automatable for a long time (tens of years or never).

- o Personal contact that inerprets human thinking, understanding, reflection, empathy, emotional state, facial expressions and body language, non-regular - all in all non-verbal (47) - communication, that is authentic and persuasive, that builds relationships and trust, will remain necessary for a very long time and will be even more important because of the previous circumstance.

- o The need for real-time face-to-face interaction is not diminishing as a result of digitalisation, but increasing (we are much more connected than before), and this increases the need for direct face-to-face contact at a distance, forms of which are already strongly developing and in practice with live video (more on this in detail below).

- o The technologies could do this, so it is already unacceptable why digital telepresence technology (2D video-based telepresence), equivalent to face-to-face, interpersonal contact, is not common practice and why people are forced to travel for this purpose if it is difficult for them and not the best option for a number of other reasons.

- o Social communication, interaction, which is based on personal relationships, is gradually and increasingly being separated from digital communication, which is becoming a highly instrumental tool, and its already existing function of strengthening social cohesion and social relationships is becoming even more pronounced and stronger.

- o Services delivered in face-to-face interactions, including through digital support and channels, get rid of routine elements. All the ,human', social functions (kindness, well-being, trust, intuition, encouragement, stress relief, reassurance, empathy, emotional and meta-communication, personalisation of organisational/institutional credibility, personal ownership) that were previously hindered by these formal, no longer distracting elements, can be more fully exercised. This is not the case with impersonal, algorithm- and AI-mediated actions, decisions and services (48).

- o In the future, it can be expected that when we need or want to contact public administration or other spheres, we will have to consider whether we need or want to communicate with a human being or a system, depending on the content and nature of the case, the problem or the situation. The choice must be provided by the institutions.

- o For a very long time, personal contact will remain an effective channel for communicating ,difficult issues', ,difficult people', ,difficult situations', and this must be ensured at a distance, because in the vast majority of cases it is precisely the obstacles of spatial and social isolation that are the source of the ,difficulties'.

- o The tasks, competences and tools of the personal public customer relations staff of the future will differ considerably from the requirements and working environment of the (current!) customer service agent of the past. We must be prepared for this, and the long process of change, which has already begun, must be taken up in good time - now.

- o The traditional way and environment of face-to-face contact with customers and the public through physical presence is a given, the content is gradually changing. The big change will be in how this can be delivered as fully as possible remotely, using digital technology, which telepresence technologies (2D, 3D) can provide.

Based on current trends, 3D telepresence technology has already moved from the experimental stage to the early stages of widespread deployment in 2020 and is poised for a major market career (49). Between 2021 and 2025, this more advanced technology is predicted to grow by nearly 20%, while the potential of 2D telepresence is not yet widely exploited. Yet Hungary is in a fortunate position, because it has the necessary hardware and software background in domestic development to gradually put this technology into practice in a scalable way and prepare organisations for the next 3D remote sensing technology that will inevitably come along.

The need for, and the commitment to, the necessary administrative use and deployment of telepresence technology can be deduced from the following guiding European documents, past (2006) and present (2020). It is therefore not only a necessity, as can be seen from the above, but also a clearly defined development direction arising from the objectives and requirements of the public administration system, not least its digitalisation. It is another question why this is not the case in the practice of modernising the domestic public administration (16). The aforementioned Public Administration and Public Service Development Strategy for the period 2014-2020 (13) also largely confirms that the telepresence technology project we are proposing concerns one of the most important areas of Hungarian public administration, one that has the greatest impact on the quality of life of citizens, society as a whole and individual communities, by extending personal access and administration to the greatest possible extent.

Nor do there seem to be any theoretical, technical and insurmountable legal obstacles to the acceptance of digital telepresence as a traditional physical presence in almost all administrative and other service relationships requiring personal presence. If this becomes widespread, supported not only by technology, but also by organisational, legal and other service conditions, life will be better and simpler for nearly 1/3 of Hungarian society, while at the same time there will be many benefits for service providers, communities and society as a whole. This relationship is illustrated in Fig. 24.

Fig. 24.
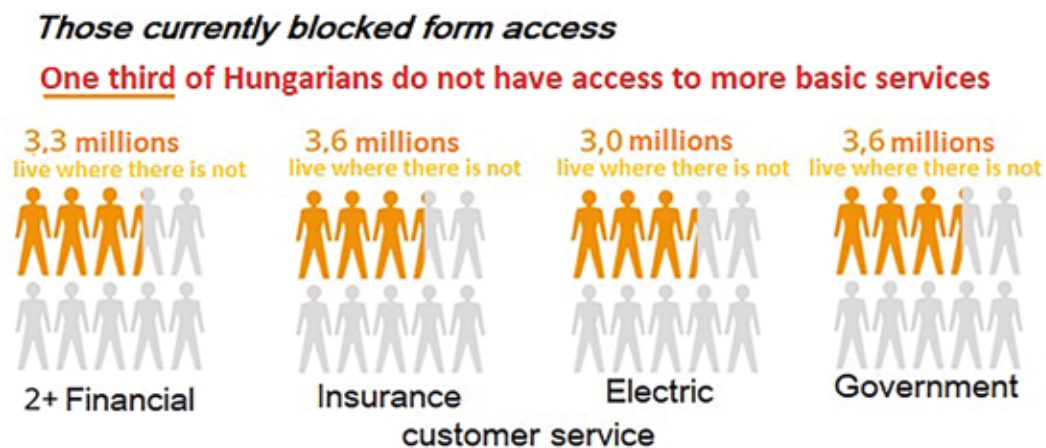
Personal serviece is only one of the channels or systems for customer and wider public engagement. Telepresence offers a fully substitutable alternative. The following (see Fig. 25.) is by no means exhaustive. It does not cover the traditional video-conferencing functions of the technology, and only partially takes into account the new possibilities of the technology that are already emerging, in particular with regard to the Internet, virtual reality and artificial intelligence. All this indicates the broad potential of the application presented (good examples of applications marked with * can already be found in practice in this country, not necessarily with state-of-the-art telepresence solutions).

Fig. 25.

Applications of telepresence technology

1. Public administration case management*	14. Customer complaint services*
2. Public service case management*	15. Information services*
3. Public administration knowledge management	16. Conducting job interviews
	17. Banking services*
4. Reporting, complaints, feedback	18. Insurance administration*
5. Conducting consultation hours	19. Doctor-patient encounter*
6. Visiting patients and hospitals	20. Expert assistance
7. Justice (e.g. tele-testimony)*	21. Advisory services*
8. Visiting prisoners	22. Public opinion polling
9. Lawyer-client contact*.	23. Education, tutoring*
10. Notarial services*	24. Examinations, consultations*
11. Interpreting services*	25. Mentoring, tutoring
12. Certain postal services	26. Meetings, networking
13. Sales channel	

Telepresence customer contact technology has a number of advantages depending on how it compares to other technologies. The following (see Fig. 26) is a list of items that apply to the latter as appropriate.

Fig. 26.

Who benefits from a network of telepresence endpoints?

What are the benefits of telepresence technology based personal customer contact channel system?	*Service provider*	*Customer, partner(50)*
1. Services appear in previously unserved areas	+	+
2. Neither party has to travel far, saving time and money	+	+
3. Increase in administrative efficiency (more clients per administrator)	+	+
4. Mutual experience of personhood in customer relations	+	+
5. Positive impact on CO2 emissions through reduced travel (51)	+	+
6. Removes barriers to technology management on the client side		+

7. Provides real-time management, immediate exchange of information	+	+
8. Effectively ensure waiting times are minimised		+
9. Technology is open to further innovation (e.g. IoT, facial recognition)	+	+
10. Technology supports omnichannel CRM solutions (52)	+	+
11. Rapid (immediate) deployment and take-up on both sides	+	+
12. Opportunity to leverage expertise more effectively	+	
13. Use of efficient work organisation solutions (e.g. teleworking)	+	
14. The possibility of rapid and extensive expansion of the services provided	+	+
15. No need to set up and maintain own customer service offices	+	
16. Provides a common solution for all service providers	+	+
17. Relatively low cost solution (e.g. compared to video conferencing)	+	
18. Can be operated without the need for a building (car)	+	
19. Low unit cost of shared server sites	+	
20. Improved public confidence through better and direct service	+	+

With the establishment of the first so-called Service Visitor Point (43) of the OK Service (see Fig. 27), as one of its communication channels, Telecottage (Telekuckó) Budaörs launched the roll-out of the Hungarian multifunctional remote presence network in May 2021, in test operation. We are confident that this application will prove the need for the new communication channel to be declared a universal telecommunication service. This would open up the possibility for the inhabitants of the most remote and isolated settlements, small communities with multiple disadvantages and their members, to benefit from personal service connections without the need for long-distance transport, IT skills and the use of their own equipment.

Photo: Gábor Vári

Sources and notes

The last date for downloading links used as resources below is generally on July 31, 2021.

1. Studies and publications based on the National University of Public Service (NKE) KÖFOP research:
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   1.3. Measuring good governance - theoretical, methodological and operational foundations, 2020, https://tudasportal.uni-nke.hu/tudastar-reszletek?id=1234567-89/15813
   1.4. Gáspár Mátyás – Zongor Gábor, The value of good practice in local government. Institutionalising a knowledge transfer service for good practice in local government, NKE, 2020, a forrás elérése: https://tudasportal.uni-nke.hu/tudastar-reszletek?id=123456789/15812
2. Amartya Sen, Development as Freedom, Európa Kiadó, 2003.
3. The European Social Charter and Action Plan to implement the European Pillar of Social Rights (Porto Summit documents) https://net.jogtar.hu/jogszabaly?docid=a0900006.tv, https://eur-lex.europa.eu/legal-content/HU/TXT/HTML/?uri=CELEX:52021DC0102&from=HU https://epale.ec.europa.eu/hu/content/szocialis-jogok-europai-pillere-az-elmelet-tettekre-valtasa https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/europe-an-pillar-social-rights-20-principles_hu
4. 2021 Edelman Trust Barometer fieldwork conducted from October 19 to November 18, 2020, https://www.edelman.com/sites/g/files/aatuss191/files/2021-03/2021%20Edelman%20Trust%20Barometer.pdf
5. Users can use this system to build their own thematic strategy map. https://intelligence.weforum.org/
6. Infodemia - the phenomenon of epidemic distortion of information, loss of truthfulness, deliberate falsification (fake news) and devaluation of information, spreading all over the world.
7. The new localism that replaces traditional localism (essentially resistance to globalisation) is the upgrading of local relations and their alignment with globalisation. See Mátyás Gáspár, THE SMART VILLAGE - ANOTHER VILLAGE, The new localism as a broader framework for thinking about the development of smart villages and regions, Új Magyar Közigazgatás / New Hungarian Public Administration, 2019/3. access: http://www.kozszov.org.hu/dokumentumok/UMK_2019/3/03_tanulmanyok_Okos_falu.pdf
8. Shareholder, participatory, inclusive capitalism, where consumers and users are involved in the innovation, development, production and trade phases. The Davos Manifesto 2020 also refers to promoting good governance as part of corporate social responsibility. Davos Manifesto 2020: The Universal Purpose of a Company in the Fourth Industrial Revolution. https://www.weforum.org/agenda/2019/12/davos-manifesto-2020-the-universal-purpose-of-a-company-in-the-fourth-industrial-revolution/

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11. The English term „corporate citizen" increasingly covers the notion of a „group actor" in public administration, which originally covered only the concept of a corporation.
12. Example: In the UK, it has been measured that satisfaction with information, accessibility and service is declining, and public-centricity and digital transformation are being offered as solutions. The evolution of local authorities: Transforming to become more customer-centric, 2019. Access: https://www.openaccessgovernment.org/local-authorities-customer-centric/69264/
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18. Tanácsadó szolgálatok létrehozásának és működtetésének kézikönyve, Dick Wilson, Stefan Mniszko, DFID, PTSZ, 1988.
19. A variant of C2C is the P2P (Peer-to-Peer) scope, where - like blockchain - there is no central service, but the system directly provides the exchange of information between parties (citizens), even the flow of money (e.g. lending, investing), which can be supported by central and local governments with IT and financial and other backing. For more details https://www.4thway.co.uk/guides/what-is-peer-to-peer-lending/
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34. Definition of services of general interest https://ec.europa.eu/info/topics/single-market/services-general-interest_en#definitionofservicesofgeneralinterest
35. Mentoring is a service at the intersection of assistance and skills development.
36. More details: Hungary's Recovery and Adaptation Plan / Magyarország Helyreállítási és Alkalmazkodási Terve https://www.palyazat.gov.hu/helyreallitasi-es-ellenallokepes-segi-eszkoz-rrf#
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38. The source of the Figure: Social support network, Educational services https://slideplayer.com/slide/10121766/

39. Many countries around the world follow the English model, but also have their own similar systems: Northern Ireland, Ireland, Scotland, New Zealand, USA (Neighbourhood Service Centres), Australia, Spain, the Netherlands, Poland, Romania. There are European (ECAS, Triple A for Citizens), https://tripleacitizens.eu/) and international organisations (Citizens Advice International).
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44. The source of the picture (Fig. 23) is the video demonstrating the Budaörs 3D virtual customer service: https://www.youtube.com/watch?v=7fg26jIqJGo
45. 10 Virtual Reality Trends to Look Out for in 2021 and Beyond, https://arpost.co/2021/04/07/10-virtual-reality-trends-2021-beyond/
46. On 7 December 2016, the Digital Future Municipal Network (DJTH) was established, the basic document of which was signed first by the initiators, Tamás Wittinghoff Budaörs and László Dicső Alsómocsolád, mayors of the municipalities of Budaörs and Alsómocsolád. Source: https://www.budaors.hu/?module=news&action=show&nid=186183
47. Studies show that only 7% of interpersonal communication is written or spoken text-based and 93% is non-verbal. References: https://www.youtube.com/watch?v=KII2qDO0J6s https://sites.google.com/site/interpersonalcommunication214/products-services,
48. The importance of personhood, almost elevating it to the heights of a fundamental human right, is addressed by the founder of modern ethology, Lorenz Konrád, and in the world of digital technologies we need to pay more and more attention to it. (Konrád Lorenz, The Decline of Our Humanity / Ember voltunk hanyatlása, Cartaphilus Publishers, 2002). This human-ethological insight is in line with our proposal to make the technological possibility of telepresence a universal service.
49. About the telepresnce market development: https://www.mordorintelligence.com/industry-reports/global-3d-telepresence-market-industry
50. In some applications the relationship is not between provider and client/customer, but a partnership.
51. This is an important climate protection objective for the use of telepresence technology: see Telepresence Revolution, 2010, https://www.att.com/Common/about_us/files/pdf/Telepresence/CDP_Telepresence_Report_Final.pdf, In Australia, this has been measured since 2009 as a result of the National Telepresence System: https://www.finance.gov.au/publications/annual-reports/annualreport11-12/performance-reporting/outcome-2.html
52. Omnichannel - the interconnected management of information across multiple information channels in a single CRM (Consumer/Client Relations Management) system.