

Organizational Resilience. How SUITS' local authorities were prepared to cope with the COVID-19 pandemic

Statement of issue

The overall objective of the H2020 CIVITAS SUITS project¹ is to enhance the capacity of small and medium local authorities to develop and implement sustainable, inclusive, integrated and accessible transport strategies, policies, technologies, practices, procedures, tools, measures and intelligent transport systems that recognise the end-to-end travel experiences of all users and freight.

To this end, SUITS shares best practice and develops a range of materials to enable, in particular, small and medium-sized cities to implement sustainable transport measures or Sustainable Urban Mobility Plans (SUMP) that support mobility transformation. A key aspect in the support of local authorities to develop and implement more sustainable transport and mobility measures has been to work on organisational change.



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When local authorities are encouraged to implement sustainable transport measures they first of all need to become a learning organisation that is able to discover what is effective by reframing its own experiences and learning from that process (see Nienaber et al. 2020a, Policy Brief No. 3). This becomes an enormous advantage in turbulent times such as the recent pandemic.

During SUITS, all of the nine SUITS' local authority partners were trained to become such learning organizations and were made familiar with different tools to support knowledge transfer, to establish an organizational culture of trust, and to reduce individuals' perceived vulnerability (Nienaber et al., 2015a and b; Schewe & Nienaber, 2014). In sum, the organizational capability of the partner cities in SUITS was enhanced together with their organizational resilience. While the urgency of change was sometimes missing in normal times to accelerate the transformational process, the recent pandemic created this sense of urgency – an opportunity for all SUITS city partners to discover in practice the value of being a learning organization and how useful their experiences have been during the SUITS project.

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European cities (similarly to cities in other continents) faced unprecedented challenges and had to reshape themselves to meet the needs of their citizens amid the pandemic. From the pedestrianization of streets to the repurposing of public spaces, cities have actuated a lot of activities, many of which had a direct impact on urban transport and mobility. But as lockdowns ease, the legacy of the coronavirus - and the changes it has inspired in urban spaces - remains unclear. Will this pandemic inspire a new blueprint for urban planning?

This final SUITS policy brief aims to highlight how the transformational process of the nine local authorities involved in SUITS into learning organizations made these cities far better prepared to cope with the challenges due to the pandemic than they would otherwise have been. Due to the higher levels of organizational resilience and the awareness of individuals' importance during such external crises, the nine local authorities were not just trying to react to the unforeseen challenges, but were able to act with a clear pathway and to use their experiences to facilitate their learning from recent years. Of course, the pandemic could not have been foreseen, but as SUITS local authorities are becoming learning organizations, they are enhancing their organizational capacity. In so doing, they have been learning a required resilience to reduce the „complexity and confusion – of what to do best“ in the beginning of the crisis and to cope with the challenges. This advantage was of enormous relevance for the local authorities.

This policy brief will pave the way for more cities to understand the relevance of becoming a learning organization and to understand the big advantages of such resilience to be able to cope with internal and external challenges in the future. Firstly, it will outline the theoretical basis of a learning organization and organizational resilience and demonstrate the relevance of individuals' ability to enhance the organisation's capacity. It will outline the decisive role *trust* can play in an organization to allow for organisational learning and resilience. In the next part, the process of organisational change that was needed to transform the cities into learning organizations will be briefly described (for more information see Nienaber et al., 2020a; Policy Brief No. 3). Afterwards, the article compares the effects induced by the work of the SUITS project with the necessities of the changing urban environment. In so doing, it shows how organisational change aiming at more sustainable urban transport and mobility increases the cities' resilience. Several best practise examples will allow other cities to learn from SUITS partners' experiences for the future.

Organisational resilience

Resilience is defined as the ability to cope with challenges through recourse to personal resources and at the same time to use them as an opportunity for (further) development. In an organizational context, the meaning of the term “resilience” goes beyond individual capabilities (Sutcliffe & Vogus, 2003). Not only individual employees, but also executives, teams or entire organizations can be resilient. Organizations are considered resilient if they not only master challenges such as changes, upheavals or crises, but at the same time emerge from them stronger (Weick & Sutcliffe, 2010). According to Philipsen and Ziemer (2013), resilience in organisations is related to three levels: to the employee, management and organizational level.

1. Individual (employee) resilience

Through targeted employee development, personal resilience can be strengthened. With the help of mindfulness training, employees learn, for example, how to perceive situations appropriately and consciously accept them, which helps them to control their actions more when unexpected events occur. During SUITS the public servants from the transport or mobility departments of the nine local authorities have been trained to learn how to benefit from a set of skills and competencies, such as becoming resilient, communicating trust, avoiding knowledge hiding, building trust inside the organization (e.g. Nienaber 2011; Nienaber et al., 2015a and b). Trust, for example, has been identified as an important trigger for individual resilience (Nienaber et al., 2015b). The more a public servant or employee trusts their colleagues, supervisors and organization or local authority the more resilient an employee will be. Trust has been shown to be the basis for resilient employees (Nienaber et al., 2015a and b).

2. Resilience leadership

According to Philipsen and Ziemer (2013), the most important linchpin is leadership that strengthens resilience and “supports” the other two resilience levels. Resilient leadership is characterized by the fact that it promotes and challenges resilience as well as living it. This means that executives act as role models with their resilient behavior and enable their employees to strengthen their strengths, for which they receive recognition from the local authorities’ management. Resilient leadership fosters also team resilience. According to Rolfe (2019), resilient teams are flexible, capable of conflict and tolerant in cooperation. Decisive for this are, among other things, the creation of caring relationships, mutual trust, and the shared conviction that you can cope with unpredictable tasks as a team (Nienaber et al., 2018).

3. Organizational level

At the organizational level, the design of the infrastructure and the material, technical and personnel equipment, as well as the organizational structure and culture have an influence on whether the organization as a whole is resilient. When local authorities or organizations in general are faced with crises and emergencies, resilience is the ability to master them successfully. In connection with municipalities, the main focus is on protecting and restoring infrastructure and security.

In the process of finding a solution, the organization develops its ability to deal with difficult challenges. The change of an organization into a learning organization is the mandatory basis for becoming resilient (Nienaber et al., 2020a). Local authorities have to learn from mistakes, coping with the crisis through quick feedback, flexible knowledge transfer and a new combination of existing resources; resilient organizations learn to focus on the perception of unforeseen threats; an expansion of the scope for action, the ability to improvise and identify the field of action; promoting diversity of perspectives in problem solving; allowing doubts about existing, established knowledge; and learn to activate internal and external social resources or networks.

To put it briefly: an organizational resilience can be seen when

- an organization is flexible and has a high willingness to learn and a culture of adaptability

- an organization knows its weaknesses, is aware of the unpredictable, and anticipates threat scenarios
- an organization can react quickly: through suitable structures, clear processes, vigilance for changes from outside or inside, rapid internal reaction (decisions)
- an organization can mobilize reserves: financial and human resources, network resources

Thus during the recent pandemic, a resilient local authority is able to overcome the crisis through the targeted and flexible use of resources in clear processes. Local authorities have to provide open and proactive information, structures that allow flexible change and the exchange of expertise and resources, the delegation of decision-making power and the approval of alternative courses of action. The nine partner municipalities in SUITS were all able to show their competencies in coping with this crisis and to demonstrate resilience through their transformation to learning organizations over the last three years.

The concept of SUITS to change local authorities into learning organizations that are resilient towards external crises

SUITS' target has been to support local authorities to cope with the new and ongoing challenges regarding future mobility. The transport sector is undergoing a major transformation globally as the emphasis is shifting towards mobility as a service, intermodality and sustainable transport and greater recognition of the role which transport plays in the health, economy and quality of life of cities and their citizens. This requires local authorities to work in new ways, with new partners, regulations, new modes of transport and innovative information and communication technologies.

They need to create far-reaching plans that will bring economic and environmental benefits to all sectors of society, at the same time increasing accessibility and inclusivity for all. In order to do this, they must evolve as an organisation to become more resilient, flexible and adaptive so that they can apply their first-hand knowledge of their city to the development of transformational mobility plans that will reshape their city.

Behavioural changes need to accompany information provision and training. Learning organizations are characterized by individuals who are willing to change their behaviours and attitudes. They are creative and willing to break new ground. However most local authorities (LAs) face difficulties when it comes to change, as it is associated with risks and uncertainty. People typically prefer to stick to old ways of working and may fear higher workloads especially if change is imposed from the top, by those not familiar with and sensitive to their organisation. Quite simply developing the best mobility plans for a city requires behavioural change.

SUITS therefore, adopted a very interactive way to work together with the local authorities over three years. The following examples are based on the work of Workpackage 6 of the SUITS project during the implementation process of sustainable transport measures in nine local authorities: Alba Iulia (Romania), Dachau (Germany), Kalamaria (Greece), Palanga (Lithuania), Rome (Italy), Stuttgart (Germany), Torino (Italy), Valencia (Spain), West Midlands (UK). The intended audience are local

authorities, transport planners and consultants, and user groups. The SUITS team applied a very interactive approach to work with the nine local authorities to foster learning and knowledge exchange between the different cities. Eleven different workshops took place that guided the different local authorities through the needed organisational change together with face to face meetings, individual phone calls, emails and discussions. Furthermore, an online forum was developed to foster the knowledge exchange of experiences between the different local authorities in-between the face-to-face workshops.

Alongside these workshops, SUITS has pursued an eight-stepped approach to implement sustainable transport measures in local authorities: (based on Kotter's model (Kotter, 1995), see for more details Nienaber et al., 2020a; Policy Brief No. 3).

1. Create urgency: the urgency of the idea of developing and implementing sustainable transport measures has to be created. This idea can be very powerful.
2. Form a powerful coalition: This coalition has to be built by employees with a range of skills, a range of experience and different areas of departments in the local authority, to maximise its effectiveness. The task of this coalition is to drive the change.
3. Create a vision for change: A vision has to be 'inspirational' to have maximum effect.
4. Communicate the vision: It is very important that the vision is communicated throughout the whole local authority and later even wider to the whole society in the city.
5. Empowering employees to take broad-based action to eliminate barriers: It is most likely that barriers will pop up to block the organisational change. These barriers have to be identified as early as possible, if they are to be overcome.
6. Create short-term wins: As rewards may be not seen in the beginning, it is most important to create and celebrate short-term wins to keep the employees motivated to support the ongoing change processes.
7. Build on the change: Many organisational changes fail in the end as they are not finished properly. It is mandatory that every local authority should keep setting goals and analysing what could be done better.
8. Anchor the Changes in Corporate Culture: The changes have to become part of the core way of working within the local authority to have a lasting effect – meaning an organization has become a "learning organization".

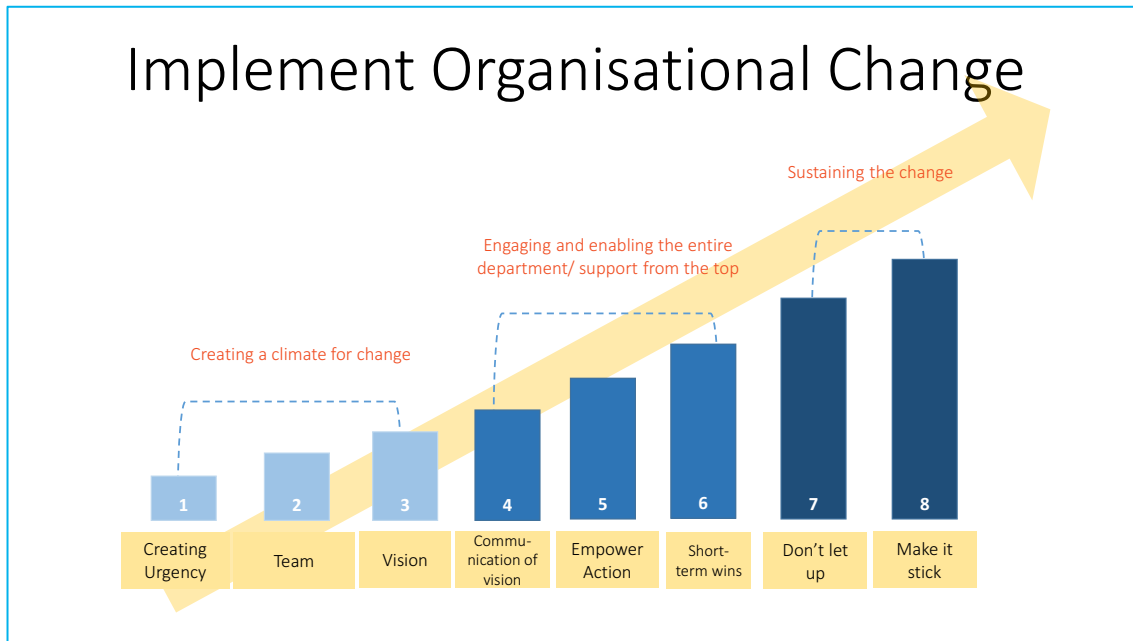


Figure 1: Organisational Change for becoming a learning organization

The SUITS project concept was holistic in the sense that the project did not only work on organisational change as outlined above, but training was also provided on cutting-edge topics for more sustainable urban transport and mobility, namely data-driven decision making tools, innovative financing and public procurement, mobility sharing (e.g. bikes or cars), and others.

How SUITS cities were able to cope with the pandemic’s challenge

SUITS worked on a Capacity Building Programme (CBP), which included the role of mobility sharing (e.g. bikes, cars or scooters) and mobility as a service in sustainable urban mobility strategies which was of great help for the cities to cope with the circumstances during the pandemic (see SUITS website to access the CBP). Many cities have introduced digital appointment booking systems at short notice in order to enable access to administrative services despite COVID-19, but the partner cities of SUITS had already discussed the acceptance of such technologies over recent years in detail and were able to identify their particular requirements individually (Nienaber & Schewe, 2014; Nienaber et al., 2020b). Many citizens of necessity began to seek digital means of clarifying questions and applying for services via the city portals. Even though not all administrative services are digitally accessible due to requirements for legal presence or written forms, our cities reported that quite a number of citizens were surprised that they could access many city services online e.g. in the West Midlands, Torino, Valencia, Stuttgart or Dachau. For example citizens do not longer have to “go to the office” for the resident parking permit, they can report infrastructure problems via

portals and the administration not only has emails and contact forms, but actually answers.

Interactive platforms had been already discussed before the pandemic as a great opportunity to enhance the citizens' engagement. For example, two years ago, Valencia and Dachau presented their interactive webpages to get complaints and requirements from their citizens about their mobility needs, e.g. the need for a cycle route; more traffic lights or more security around "kids" places such as playgrounds, nurseries or schools. Most important is the interaction with the citizens to keep such portals alive. Mobility department staff explained that citizens generally expect immediate answers. During the recent pandemic, the cities could build on their experiences with these kind of interactive platforms and think about adopting such formats to interact with their citizens in relation to other topics also, such as the need for medicine or food in particular to elderly citizens.

Other examples of new opportunities in the field of public service can be found easily. Palanga helped to bring together the city's taxi companies to develop new services. Due to the recent pandemic taxi companies in Europe have had "probably at least 80 percent" fewer orders and to compensate for the financial damage, taxi companies have started to expand their range. In Palanga taxis began deliveries of prepaid groceries and medicines with everything organized electronically. Furthermore, SUITS had identified already that capacity is needed regarding the legal framework to establish pop-up bike lanes and to bring in ideas for the tactical usage of public space - and this became more obvious during city responses to the pandemic. These developments do not contradict the possibilities to make service more efficient by incorporating expertise and ability of the private sector, because effective public-private partnerships benefit from an experienced public counterpart such as the Palanga example demonstrates.

Finally, as the development of data-driven approaches to facilitate efficient delivery of goods was an important part of SUITS, we can show a further example how well prepared the Greek city of Kalamaria has been. SUITS' work had focussed on easing additional time pressure from congestion (Pirra & Diana 2019; Fotis et al. 2020) adopting the concept of crowdsourcing. Such crowdsourcing could easily be extended and incorporate more information, depending on the willingness of the user to share data. So for example mobile users could indicate their shopping trips with the purpose of helping vulnerable people, i.e. co-buying food and medical equipment for residents who wish to stay or are forced to stay at home.

The pandemic made local authorities aware of the imperative need for further change for crisis resistance and resilience of the administration. The financing - from technical equipment to e-files, document management systems to the introduction of new media discontinuity-free procedures - is a considerable hurdle in view of tight budgets.

The motivation for digitization is currently higher than ever. During the peak phase, the cities showed what they are capable of: namely, to react flexibly and quickly and to deploy staff, knowledge and experience in a targeted and needs-based manner. We must now use this momentum and the funds from the federal stimulus package together with our partners from the federal and state governments to make the administrations resilient and future-proof.

The transport innovation team at the West Midlands Combined Authority, UK (WMCA) explained for example that their efforts to digitalize processes and structures in the

organization were the baseline for successfully coping with the challenges of the recent pandemic and pave the way for their future work life. While electronic software for example was only used by the innovation team a year ago, the pandemic increased the acceptance and more importantly, the use of this kind of software to a maximum. Nowadays, every employee at WMCA uses this kind of software to interact with each other. The innovation team itself increased from 5 people at its inception a year ago to more than 25 members. Furthermore, WMCA implemented 'learning organisation' principles as a regular feature to all their events due to the recent challenges along the pandemic. For example quarterly directorate meetings are now virtual which allows for flexibility in general, such as the availability of the directorate team regarding time and place. Furthermore representatives from the innovation team are now part of all major boards, raising the profile of the team and of projects around digitalization.

Furthermore, some aspects have become central to the top management of the city partners that pushed SUITS' team efforts to enhance the cities' capabilities to cope with future mobility needs. Rome for example became aware of the need to better use city resources and to avoid "rush hours" – "Better regulation of city timing". Rome also pushed also the "active modes" when it comes to mobility such as bikes or scooters. Rome's top management now tries to limit predominance of cars and supports alternatives for mobility. Rome also became more aware of the need for a better lifestyle for its citizens and is currently recovering local open spaces to improve the environment.

In general all of SUITS city partners underlined the importance of bicycles for their cities. In times of COVID-19, the bicycle has been and is a useful means of transport for the essential trips. It is a good alternative to public transport and more environmentally friendly than the car. Also the World Health Organization has underlined the benefits of cycling and walking as a means of transport as they both allow for physical distancing and enable exercise. The City of Stuttgart for example supports cyclists since April 2020 with free access to the Bike Citizens navigation app. The Bike Citizens app offers map displays and route planning especially for cyclists. Maps can be downloaded and routes can be announced using voice control. Cyclists can download the Bike Citizens app in Stuttgart for one year free of charge; there are no additional costs for longer-term use. A similar development can be seen in Valencia. While Valencia was already very active to promote cycling in their city, the recent pandemic increased these efforts dramatically.

As local authorities prepare almost for a relaxation of lockdown measures, plans to reshape mobility are beginning. The Spanish city Valencia has created a budget to finance many kilometres of new bike lanes and pavements.

SUITS cities adopted the new standards and demonstrated their ability to anticipate future developments

Organizational change within local authorities requires technical equipment. Cities that already had sophisticated electronic systems in addition to laptops and secure access, had an advantage, such as the West Midlands Combined Authority or Alba Iulia. End-to-end digital administration is only conceivable with shared e-files, a document management system and resilient network infrastructures. Our city partners told us that

changes to the law are also necessary in order to exploit the potential of digital procedures in compliance with data protection regulations and to reduce bureaucracy, speed up and improve service. Recent efforts by the European Commission to get more clarification of the ownership of data or the protection of data shows this development (see recent report Citizen-generated data for public policy 2020).

All of the city partners went through an extreme change regarding the digitalization process. As all employees had to work from home for a particular time, quick and efficient solutions were necessary. Thus, while in the past home working was usually not an option for local authorities, they had to change their standards as soon as possible to provide at least a minimum of service to their citizens. The technical equipment was a key issue for many cities. Not every employee could be equipped with the required technical support to be able to work remotely. While the WMCA could benefit enormously from their “transport innovation team” which had already introduced “software to work with each other virtually”, other cities could not build on such tools. To use the words of Rome’s mobility head: “Smart working and digitalization: it’s a structural revolution and not only a passenger phenomena!” The city of Rome wants to redesign its infrastructure according to the requirements of the recent pandemic and future tendency to work remotely and in particular smart working.

In addition, the COVID-19 crisis is revolutionizing classic work structures. The “home office” is only the external appearance. What is important is what work will look like in the future, which skills will be important and how we will shape this path together with the employees. Vocational education and training is central here, and close cooperation between municipalities, states, federal government, academia, educational institutions and trade unions is needed. The SUITS cities became learning organisations through the close cooperation with academia and educational institutions. Following on from the SUITS project, the cities decided to build on close relationships with academia. Several “cross-learning sets” have been set up with the support of Coventry University which are designed as informal communication groups to discuss recent trends, developments and activities. For example Valencia, Coventry and WMCA are building a group that want to keep their knowledge exchange on mobility topics for the future. Another example is the close cooperation between Rome and Valencia. Experts and researchers bring new insights, but SUITS also fostered peer-to-peer learning. Rational learning approaches suggest that actors that face similar problems may turn to their peers in search for suitable and proven solutions. Understanding which solutions worked well in other municipalities reduces costs and efforts for the identification of adequate and effective measures and may avoid potentially costly negative lessons from trial and error learning (see SUITS CBP).

Finally, to make those changes last, cities will need to develop new strategies for their future. SUITS highlighted the need for a vision and presented different tools to develop and communicate a new vision. The relevance of a vision and the challenge to develop and communicate a vision was part of three interactive workshops during SUITS. Furthermore, the “new” or “adopted” visions of the cities that were developed 3 years ago together with the SUITS team already pave the way for a “more digital” and “flexible” mobility future and as such provide a good start to prove whether these visions will cope with the new challenges or have to be redesigned.

Overview of SUITS achievements to support local authorities to cope with the recent pandemic challenges

Following the seven points of the Wuppertal Institute (Schneidewind et al. 2020) we summarize the effects of the pandemic on local authorities and highlight how SUITS cities were able to show how they coped with it due to their organizational resilience.

Effects of the pandemic on cities	How the SUITS approach increases the cities' resilience
Helping the neighbour in times of social distancing	<p>An important part of SUITS was to develop data-driven approaches to facilitate efficient delivery of goods. This work had focussed on easing additional time pressure from congestion (Pirra & Diana 2019). Such crowdsourcing could easily be extended and could incorporate more information, depending on the willingness of the user to share data.</p> <p>E.g., mobile users could indicate their shopping trips with the purpose of helping vulnerable people, i.e. co-buying food and medical equipment for residents who wish to stay or are forced to stay at home.</p>
City centres will need new building use concepts	<p>SUITS highlighted the need for a vision. For city officials it is now virtually mandatory to discuss the future of the city centre. An existing vision facilitates this process. If a vision needs to be updated, then the experience with developing the initial one will be helpful.</p>
The importance of public services	<p>It is at the heart of learning organisations to attain and to ensure the capacity of staff members. Such capacity is needed in times of a crisis. For instance, capacity was needed about the legal framework to establish pop-up bike lanes and to bring in ideas for the tactical usage of public space.</p> <p>This does not contradict the possibilities to make service more efficient by incorporating expertise and ability of the private sector, because effective public-private partnerships benefit from an experienced public counterpart.</p>
The role of digital services	<p>The role of digitalisation in transport is eminent. SUITS has worked on a Capacity Building Programme (CBP) which includes the role of sharing mobility and mobility as a service in sustainable urban mobility strategies. The CBP also includes a module on urban freight transport measures. The training material focuses on challenges of small and medium-sized cities.</p>
Mobility becomes multimodal	<p>Multimodal mobility behaviour was a cross-cutting issue in the SUITS CBP. It is at the heart of a SUMP to develop strategies that include all modes of transport. Such knowledge was conveyed to the cities in workshops, guidelines and other formats.</p> <p>For instance, SUITS has developed a guideline for innovative financing mechanisms including ways to finance</p>

	<p>public transport. This guideline was an integral part of the partner authorities' discussions in their eight steps towards a learning organisation.</p>
Involving stakeholders and citizens	<p>The development and implementation of a SUMP needs to be based on a high level of cooperation, coordination and consultation across different levels of government and between institutions (and their departments) in the planning area (see SUMP guidelines, Rupprecht et al. 2019).</p> <p>The challenges of the COVID-19 pandemic are very similar. Parts of the organisational change process of the West Midlands Combined Authority (UK) are exemplary: The authority organizes in-house workshops, on the one hand with external trainers, but also internal workshops in which staff jointly try to develop ideas for concrete activities. Furthermore, employees are encouraged to use teamwork software to share and discuss issues they have found on specific topics of sustainable mobility. Such activities have helped the authority to cope with the challenges of the pandemic.</p>
Cities benefit from researchers and experts	<p>The SUITS cities became learning organisations, because they had shown an initial interest. Experts and researchers bring new insights, but SUITS also fostered peer-to-peer learning. A widespread insight for participants of the workshops, webinars and e-learning courses was that cities all over Europe were confronted with comparable issues. Rational learning approaches suggest that actors that face similar problems may turn to their peers in search for suitable and proven solutions. Understanding which solutions worked well in other municipalities reduces costs and efforts for the identification of adequate and effective measures and may avoid potentially costly negative lessons from trial and error learning.</p>

Table 1: How the SUITS approach increases the cities' resilience

Outlook

The COVID-19 crisis has shown that cities with learning authorities are more resilient than without such efforts. Sustainable urban mobility and the ability to react to a pandemic don't have much in common at first glance. But in fact, there are many ways in which transport departments were and are able to contribute to mitigating the effects of the pandemic. A change in the organizational culture changes the organisation's operation and functioning. Cities' departments should strive to become learning organisations. In so doing, they will become resilient cities.

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