



*Employers entrusted to deliver
Sustainability Growth Innovation*

SGIs for the EU Recovery

The contribution of SGI providers to the Resilience and Recovery Plans

24 March 2021

SGIs for the EU Recovery

SGI Europe believes that the promotion of strategically designed investment in services of general interest (SGIs) is key to guarantee the recovery, promote upward convergence and, consequently, foster a stronger and more resilient European social market economy.

SGIs employ over 60 million workers, contribute to approximately 26% of the EU GDP and represent a large part of the activities that remained operational throughout the crisis. Those services guaranteed the well-being and security of citizens and played a vital role in maintaining a certain level of economic activity which prevented further weakening of the Single Market. Therefore, SGI Europe believes that Member States should put SGI investments at the centre of their National Recovery Plans.

In the context of the discussions happening at national level for the drafting of the National Recovery and Resilience Plans (NRRPs), to be finalised and presented by the Member States by the end of April 2021, **SGI Europe members have submitted their strategic investment projects to their respective national governments.** These projects are in line with the flagship priorities identified in the Next Generation EU and the Recovery and Resilience Facility and translated in the Annual Sustainable Growth Strategy.

This background document is accompanied by an Annex presenting some SGI Europe members' projects submitted – or likely to be submitted – at the national level, and therefore likely to being included in the NRRPs. The projects fall within the following three main sections:

- 1. SGI Europe members' projects for the Green Transition**
- 2. SGI Europe members' projects for the Digital Transition**
- 3. SGI Europe members' projects for Mobility Infrastructures**

Projects developed with the aim of achieving the green transition account for most of the work of SGI Europe members. Yet, whilst explicitly going into the required direction of a long-term impact and being a steppingstone for structural reforms instead of "one off" investments, some of the projects here presented have been rejected or not even taken into account in their respective National Recovery and Resilience Plan.

Executive Summary

This background document provides an overview of some of SGI Europe members' proposals for a green, digital and fair recovery after the COVID-19 crisis.

The aim is:

1. To provide the RECOVER Task Force with a clear understanding of **SGI Europe members' concrete proposals**, which are likely to be included in the NRRPs in terms of strategic objectives and investment priorities;
2. To raise several key issues and making general remarks on the **drafting, consultation and submission procedures** of the national plans. The detailed projects are added in an Annex to this document;
3. To give a **geographical overview** of projects.

The proposals

All the proposals submitted by our members to their respective governments are clearly in line with the strategic objectives and investment priorities outlined in the RRF.

There is a **significant share of green** transition-oriented projects, compared to those concerning digital and mobility priorities, however it is difficult to make a black and white statement on this point, the overlaps between the digital and green aspects being constant in the quasi totality of the submissions.

In terms of **balance between the investment and reform element of projects**, we believe that submission by SGI Europe members perfectly match that balance. In the vast majority of examples, the investments to be realised thanks to the RRF are a steppingstone for launching the speeding up of long awaited infrastructural (whether physical or social infrastructures) projects in a given country. This just confirms the SGI EUROPE assessment that years of underinvestment in those infrastructures since the 2008 crisis make it now necessary to repair and progress, and our members have clearly understood that this is how to make use of NGEU in combination with the RRF as soon as the decision of own resources becomes active.

Unfortunately, the majority of our members equally report back that their respective government is deciding to invest the biggest share, if not the totality of the RRF funds in "already activated efforts" in the framework of the budgetary process 2021, hence conflicting with the very essence of NGEU as an instrument for recovery.

This is, above all, the main point of concern we want to address to the EC, and in particular the RECOVER TF, calling on them to multiply their efforts to put Member States in the right direction for them not to miss this unique opportunity to increase their long-term growth potential.

The procedures

Under the procedural aspect the feedback from our members can be summarised into three categories:

1. **No consultation at all:** this is luckily not the case of the majority, but we have members that have not been consulted at all, even in countries with a long-lasting and very strong tradition of social dialogue.
2. **Suboptimal consultation:** fall in this category members that had the possibility to meet their respective government but just to learn their MS plan, with no possibility of interaction and proposals.
3. **Decent consultation:** we have defined several cases where our members had the possibility to send and discuss their projects with the relevant Ministerial settings of the government. What was still missing is a coordinated approach as opposed to ineffective consultations in silos. We hope that in those countries where a decent consultation has taken place, a final and structured round with the social partners will be organised before the final presentation of the NNRP in April.

Whatever the category our members fall in, they have all reported **strong concerns about the centralisation of the dialogue at national level**. Well aware of the need for the EC to have only one interlocutor in such a very

delicate phase and seen the limited time available, concerns remain due to the fact that Member States did not take the necessary time to consult their respective regional and local levels appropriately.

Once the different NRRPs are approved, they will have to be implemented on the ground. **It is going to be at regional and local level that the biggest capacity and administrative efforts will be required, hence the lack of consultation of the key local actors in this phase will result in delays, if not in conflicts of power, in the implementation phase.** We call on the EC to take this aspect seriously into account and include it in the call for consultation of relevant actors when interacting with MS within the RECOVER TF and the Steering Committee.

Summary of the geographical overview

Utilitalia – the Italian Federation of Utilities, has identified several strategic projects from a social, economic and environmental point of view, for a total investment of around €25 billion euros, which would have a potential impact on GDP of +1.5% and on employment of around 285,000 incremental units. Utilitalia has had the opportunity to present its projects to the Italian government that, since the nomination of Mario Draghi as Prime Minister, is thoroughly reviewing previous drafts and taking the projects into consideration (or not) for the final version of the Italian RRP. In this background document, a number of issues are addressed and raised to the RECOVER Task Force in order to have further clarification on investments' examples and the financing, compliance and implementation of projects.

Still in the Italian context, **ASSTRA – Associazione Trasporti**'s investment priorities are also presented in this document, and notably the need for expansive investment policies for the transport sector in Italy, which has seen huge losses in the last year, far from being restored in 2021 and in the years to come, if not by substantially increasing investments in transport infrastructure, new digital technologies, safety and urban regeneration.

Several members of the French section of SGI Europe (namely FedEpl, France Urbaine, UDES and Orange) highlight here their perspective on the French Recovery Plan, mostly from the point of view of local public enterprises working in different sectors. In particular, they point out several avenues for the resumption of their activities, thereby putting forward concrete proposals for further improving the French RRP by taking into account the local and urban realities of territories for a green and digital revolution after the COVID-19 crisis.

VÖWG, representing **Austrian public enterprises and facilities**, has collected several projects examples from its members working and acting in different sectors, which meet the criteria of the RRF and the milestones of Next Generation EU. However, the Austrian Single Point of Contact (SPoC) is not taking VÖWG members' projects into consideration for the National Recovery and Resilience Plan.

SALAR (Swedish Association of Local Authorities and Regions) points out that its involvement, both as a Swedish social partner and as a representative of the municipalities and regions in Sweden, has been far from sufficient on the part of the government in the context of drafting the Swedish NRRP.

Similarly, the **Bulgarian Industrial Capital Association**, together with other Bulgarian Employers' Organisation, has been pleading for a long time on their key priorities addressing the needs of the Industry. Nevertheless, the Bulgarian Recovery Plan is not currently in a stage to present concrete projects.

EFEE (European Federation of Education Employers) addresses here the current state of play of national investments in the education sector in three Member States, i.e., Belgium, Portugal and Poland. It notably highlights that the education sector will play a crucial role in the post-COVID-19 recovery of the European Union, and mainly puts the focus on the need to invest in digitalisation services, schools and competences, in order to prepare the next generation to a new and revitalised European Union.

Details of the contributions

ITALY

Utilitalia – Italian Federation of Utilities

Utilitalia is the Federation that brings together about 500 companies operating in the public services of Water, Environment, Electricity and Gas, representing them at national and European institutions.

Value of production	€38 billion
Profits	€1.3 billion
Total workforce	36,097 in Water and Gas 41,959 in Environment 12,536 in Energy
Percentage of population served by Utilitalia members:	80% Water 55% Environment 30% Gas 15% Energy

Italy suffers from a chronic water, urban waste and energy infrastructure gap and needs substantial investments to provide adequate services to customers and the environment. Decarbonising and adopting a full circular model of the economy in a few years requires a step change to the pace at which investments are undertaken in these areas. **The Utility sector plays a central role in delivering a green and digital transition of the economy.** Therefore, the inclusion of Utility investments in the Italian National Recovery and Resilience Plan is key to boost pace of the transition.

In this context, it is essential to identify strategic projects, from an economic, social and environmental point of view, aimed at a sustainable growth strategy both at national and European level. Therefore, Utilitalia has collected strategic projects from its members, potentially eligible of being included in the next Italian National Recovery and Resilience Plan, analysed them, and allocated them to different investment categories that, in turn, were allocated according to their contribution to green and digital transition.

Utilitalia has carried out a geographical impact analysis (how different investments are distributed across the country) and, with help from Svimez – a research centre, an economic impact analysis (in terms of GDP contribution and new jobs created).

The total investment proposed by Utilitalia member companies is around €25 billion, that would contribute to an investment programme with a **potential impact on national GDP equal to +1.5%** and **on employment of approximately 285,000 incremental units.**

Geographical distribution of the proposed projects, in terms of number of projects and their costs, displays a higher concentration in the north and in the centre of the country (about 90% in terms of number of projects and 80% of the total value). This distribution reflects Utilitalia membership structure (less members in the South) but is indicative also of the industrial fabric of South Italy: a reduced presence of companies capable of planning and implementing necessary investments to fill the infrastructural gap with the North and thus helping to solve Italian service divide between the two-geographical pole of the country.

Therefore, in order to implement the investment plan within the Recovery Plan, it is necessary to sustain investments with a process of strategic sector reforms.

In this context, Utilitalia points out the following critical issues that still need to be addressed:

ISSUES SUMMARY	
Waste to chemicals	Given the difficulties in financing projects dedicated to energy recovery, can waste-to-chemicals recycling plants be considered as recycling plants?
Sludge treatment	Can interventions for the thermal treatment of sludge, without further specific indications on its further valorisation, be part of circular economy projects?
Implementing entity	What profiles are foreseen to apply as an implementing body? (e.g., can networks of companies or temporary associations of companies be considered as such)?
	In the light of EU state aid rules, is there no advantage to operators in the different sectors (environment, energy and water) if the subsidy is awarded following a competitive procedure?
State aid	Considering the European rules on state aid for district heating plants (TLR), which rules apply for a project that does not concern an efficient TLR system (or one that will become efficient as a result of the investment)?

ASSTRA – Associazione Trasporti

ASSTRA - Associazione Trasporti – is the Italian national employers' association of local public transport companies, both local authority-owned and private. It was created in 2001 from the merger of the two trade associations Federtrasporti (federation of municipalised companies) and Fenit (federation of concessionary railways). Both associations had existed for more than 60 years.

ASSTRA is made up of urban and suburban transport companies, companies operating bus, tram, metro and cableway services, all local railways (not belonging to Trenitalia S.p.A) as well as lagoon and lake navigation companies.

ASSTRA believes that the resources Italy will receive with the Next Generation EU instrument represent an opportunity for the transport sector in Italy to overcome the gap compared to other European countries in terms of sustainability.

The health emergency of COVID-19 had a very significant impact on the financial, economic, organisational and management structure of the regional and local public transport (LPT) system.

In fact, demand had a loss in the lockdown period of more than 90% compared to normal values, with a loss of revenues from total traffic of at least €2.2 billion. The imbalance still to be overcome in order to restore the overall economic balance of the sector in 2020 is more than €790 million. For 2021, too, the situation is not encouraging: the sector's economic gap for the first half of 2021 is quantifiable in €1 billion.

To continue to offer an efficient service for the 15 million people who used local public transport in the run up to COVID-19, it is to focus on an **expansive investment policy in vehicles (buses and trains), in new infrastructure, in railway safety, in new digital technologies, urban regeneration projects.** Investing in public transport generates extraordinary social, environmental and economic benefits. As shown by a CDP/ASSTRA study, **the multiplier effect of current LPT investments on GDP and employment is very significant: EUR 3.8 million per year (0.2% of GDP) and 99,000 more jobs.**

FRANCE

Federation of Local Public Services Enterprises (LPSE) Elected Officials

The LPSE movement has maintained quality exchanges with the French government since the beginning of the health crisis, often enabling the specific characteristics of LPSE to be taken into account and facilitating their ownership of emergency measures. The local public enterprises' movement has identified several avenues for the resumption of the economic activity following the COVID-19 health crisis, and highlighting:

Proposals for revival linked to local and regional authorities that are shareholders of the LPSE

- a) The need to provide communities with the necessary means to support the economic fabric;
- b) The relaxation of the conditions of access by local authorities to loan guarantees;
- c) The system of advances on associates' current accounts;
- d) The weakening of local authority revenues linked to the occupation of the public domain;
- e) The advance payment of tax credits to the LPSE.

The urgent revival of the activity of the LPSE in the tourism, culture and leisure sector:

- a) The need for a rapid reopening;
- b) Proposals to accelerate recovery:
 - The establishment of a protocol to accompany the reopening of the sites;
 - Support for the LPSE in the context of the takeover;
 - The setting up of a specific aid fund for the tourism sector, to be replenished by the State, the Regions and Insurance companies;
 - Offer the inhabitants a chequebook with free entrance fees to tourist and cultural sites that can be used in the region of residence;
 - Opening patronage to Local public companies (Lpc).

Ways to limit the consequences of Covid-19 on Semi-public real estate companies

The 176 LPSE, mainly real estate, continue to face problems in terms of development (insurance and liability on building sites).

With a view to encouraging environmentally friendly projects, it is proposed to include a criterion of energy renovation in the Public Utility Declarations (DUP) under which are carried out Property Restoration Operations (ORI).

The benefit of the system provided for by the Malraux law allowing for a tax reduction on the rehabilitation of a building could also be granted to the works of the ORI under DUP outside the saved sector.

In order to speed up the recovery of their activity, Local public development enterprises is requesting an extension of the interest-free loan and the PINEL scheme beyond housing located in a collective housing building.

Finally, FedEpl is in favour of opening up the possibility for Semi-public companies to issue equity securities. This opening would in fact make it possible to compensate for possible shortfalls in the equity capital of the LPSE for a takeover under optimal conditions.

In this respect, the uncertainties related to the drafting of Article L. 228-36 of the French Commercial Code must be resolved by expressly affirming the possibility for local Semi-public companies to issue equity securities.

Finally, FedEpl is also calling for an extension of the scope of the single budget line dedicated to Overseas France.

These funds not used in 2020 could, by territory, be directed towards the revival of activity as well as real estate and development projects carried by the LPSE. In this respect, FedEpl has launched a reflection to identify territorial initiatives.

Taking into account LPSE in European law

As a reminder, the current definition of an SME in European law is based on the European Commission Recommendation 2003/361/EC, which has subsequently been embedded in EU binding law by being included in the Commission Regulation (EU) No 651/2014. These two pieces of legislation are based on compliance with three main criteria: the number of employees must be less than 250 on an annual full-time basis, an annual turnover of less than €50 million and 25% or more of its capital or voting rights must not be directly or indirectly controlled, jointly, or individually, by one or more public administrations.

This last criterion based on ownership currently excludes the 32,000 local public enterprises operating throughout the European Union and which are SMEs in terms of both size and turnover from the support mechanisms opened by the Commission to SMEs only, whether it is a question of eligibility for certain funding or of simplifying certain rules.

This is also the case at the national level when several financial institutions regularly deny funding to LPSEs, based on the strict, if not restrictive, application and interpretation of the European definition of SMEs when providing financing instruments (loans or guarantees). Besides, the European definition of SMEs contradicts the French definition that only contains staff headcount and financial performance criteria, leading to overlapping rules of application.

The French and European LPSEs have thus had access for a long time to most European funds (ERDF, ESF, EAFRD) as well as to certain programmes (Horizon 2020) open to all SMEs without prejudice to their legal status. In this period of health crisis in France, they also fully benefit from the emergency mechanism of State Guaranteed Loans launched at the end of March 2020, as well as the Investment Plan announced by the CDC. Paradoxically, however, they are still being refused certain schemes ("rebound loans" and "asset loans"), even though the demands of the recovery in terms of investment will require the mobilisation of all available means to get the economy moving again across all territories.

While waiting for the necessary tidying up of the European definition of the SME, which has been undertaken, FedEpl is already asking that this optional definition, which is particularly restrictive with regard to the crisis-shock-absorbing role played by SMEs, should no longer be used in France.

France Urbaine – Association of Elected Representatives of Metropolises, Large Communities and Central or Peripheral Cities

France Urbaine is a French association of local authorities that embodies urban diversity and promotes the alliance of territories. Carried by elected representatives of all political tendencies, the association is composed of 106 members. It brings together France's major cities, metropolises, urban communities and conurbation communities, and represents 2,000 municipalities of all sizes in which nearly 30 million French people live.

France Urbaine carries a political and technical vision at the service of its members and citizens by **engaging in a permanent dialogue with all the actors of society at local, national, European and international levels**; it enlightens public decision-making on the main issues concerning urban territories and decentralisation.

France Urbaine's (FU) points of vigilance today focus on:

1. The **method of consultation between the State and cities**. A method agreement is currently being negotiated between FU and the French Prime Minister. It should be finalised (or not) very soon. A communication from France Urbaine should follow.
2. The **multiplication of AAP** (calls for projects) and AMI (calls for expression of interest) – 140 of them have been launched in parallel. **Local authorities (even large ones) are unable to respond to them**, therefore they cannot benefit fully from them.
3. In terms of content, according to FU, **France Relance does not support enough the public transport sector, energy-efficient housing renovation and urban policy**.

UDES – Union des Employeurs de l'Economie Sociale et Solidaire

The UDES, Union of Employers in the Social and Solidarity Economy (EES), brings together 23 employers' groups and unions (associations, mutual societies, cooperatives) and 16 professional branches and sectors. With more than 30,000 companies, employing nearly 1 million people, the UDES is the multi-professional organisation of the social and solidarity economy. It brings together 80% of federated employers in the social and solidarity economy.

Before the COVID-19 crisis, the Social and Solidarity Economy (EES) was:

- 2,3 million employees
- 10.5% of employment in France and 14% of private employment
- +4.5% job creation between 2008 and 2019

EES enterprises **are still in the crisis and mobilised on how to safeguard employment before possibly creating new jobs in connection with the French Recovery Plan**. It is still time to heal COVID's wounds on the economy, particularly on associations, cooperatives and mutual care and support activities.

Like all companies, those of the EES and especially associations are not spared by the crisis. **All sectors of EES are affected with some sectors at a standstill such as sport and culture, others in partial resumption of activity** e.g., social tourism, popular education, animation and others in continuity of activity such as home help and medico-social work.

In the animation and popular education sector, 58% of the structures have maintained their activities, with great attention paid to health protocols. 25% of the structures have less than 3 months of cash flow. 82% have resorted to partial unemployment, between 8% and 31% to other public aid: considered indispensable by 75% of respondents. A drop in staff numbers is expected in 33% of the structures. Fears for the future in 36% of cases.

Since the beginning of this crisis, the UDES and all its members have been mobilised to raise the difficulties encountered in the field by the associations with the public authorities so that they can provide adequate responses.

During this crisis, the EU has made some progress:

- The UDES welcomes the fact that the EES has a dedicated and consistent line in the French Recovery Plan, even if on certain aspects and sectors it is necessary to go further;
- Since this announcement, sectoral plans have been added to the first measures: plans for sport, culture and tourism in particular;
- However, there are still many difficulties in the EES sectors. These measures do not respond to all identified problems. The UDES therefore continues its efforts to obtain, notably, the **implementation of a support mechanism in the sectors still in need**.

In order to overcome its obvious long-term difficulties, many branches of EES have concluded APLD agreements, **workshops and integration camps, broadcasting, sport or are in the process of doing so, such as Social and Family Tourism or animation**.

On the question of telework, we have seen the **phenomenon of wear and tear on employees, which is reflected in demands for a return to more regular forms of professional sociability**, but also in inequalities of treatment between categories of employees (professional and managerial staff / non-professional staff, intervention staff / teleworking staff).

The UDES has launched a major project on the digital issue, and in particular on telework, by going beyond the notion of forced telework. An agreement on this subject is currently being negotiated, as well as a national EDEC (*Engagement, development and competences*) being deployed.

The particular expectations of employers' associations most affected in the period:

- A recovery plan based on demand in the image of the "pass-sport" in popular education and leisure activities;
- Extending short-time work schemes as long as the crisis impacts the economy;
- A strengthening of quasi-equity loan solutions beyond loans and the solidarity fund, which are not always appropriate;
- Support and engineering for fund raising and project management;
- The establishment of a compensation fund for loss of activity for sport and leisure activities;
- Updating for 2021 of the Prime Minister's circular on the payment of endowments and subsidies to associations;
- The assumption by the State of additional COVID costs for LPSE.

On the issue of ESAT (French Support and Work Assistance Establishment), **a budget of €10 million has been set up for this purpose** by the Secretariat of State for Disability. The priority ESATs are those positioned on a single activity strongly affected by the health crisis: catering, tourism, subcontracting in industrial sectors such as aeronautics and which do not have the support of a management body that can compensate for losses by other activities or by mobilising its own cash flow. The expectations of our employers on this last point are in the process of being met.

Orange Business Services

Orange is among a wide list of ETNO members and large enterprises from various sectors that support the EC target to achieve at least a 55% reduction of emissions by 2030. Orange is targeting 2040 for carbon neutrality without offset.

Within the three axes on which is based the French Recovery Plan (Environment and Ecology €30bn; Competitiveness and attractiveness €35bn; Cohesion €35bn), **€30 billion are allocated to digital transition**. As for the opportunities provided for in the Recovery Plan, Orange notes the following:

- **Education, research and culture;**
- **Investment plans (PIA 4);**
- **Digital transformation SMEs and SOHOs;**
- **Digital transformation of government and territories;**
- **Trade and tourism in the territories;**
- **E-health;**
- **Local Government;**
- **Digital inclusion.**

Orange supports the French RRF "France Relance" to build France 2030 with digital.

Energy Transition

- **Drive energy consumption with data;**
- **Master energy within "Smart home";**
- **Support local economy;**
- **Smart and respectful transportation.**

Competitiveness

- 4.0 Industry on territories;
- Dynamize local retail;
- Co-innovate for the future;
- Support SOHOs and SMEs digital transformation.

Social Cohesion and Territories

- Invent together the “Smart City”;
- Simplify health journeys with the digital;
- Rethink education;
- Prepare to future jobs;
- Support “digital for all”;
- Make telework simpler.

Supporting SMEs on territories

- With a single digital platform COBIZ: COBIZ brings together local digital players and Orange Business Services (OBS) equipment around their customers;
- Recruit SMEs with digital skills to work on projects.

For CMI (Customer Marketing Innovation)

- Creation of a France Relance Task Force, concerning all industries including the public sector;
- Discussion with Bus;
- Prioritization of offers;
- New offers, co-innovation.

SWEDEN

SALAR – Swedish Association of Local Authorities and Regions

The Swedish Association of Local Authorities and Regions (SALAR) is an employers’ organisation that **represents and advocates local government in Sweden**. All of Sweden’s municipalities and regions are members of SALAR. SALAR’s members are the employers of more than one million people, which make them **the largest employers’ organisation in Sweden**.

SALAR points out that, in Sweden, all RRF funds will be invested in “already activated efforts” in the framework of the budgetary process 2021 and the supplementary amending budgets. SALAR does not know what these activated projects are. Neither SALAR nor its members were able to apply for the projects.

As for the content, according to what is known based on SALAR’s input and wishes, there will be a **digital focus and continued expansion of broadband**, but also a **focus on elderly care and a common digital infrastructure**. There will also be some **digital deepening efforts in education**. The Ministry of Finance also announced that the **provision of skills** will be the focus, as it is already a “bottom plate” in the budget process in 2021, and therefore will also be a “bottom plate” in the plan sent to the European Commission. It seems that electricity, on the other hand, will not be included in the way SALAR wanted.

SALAR invited the Ministry of Finance to a meeting with the regions to discuss this further but has not yet received a response. They also raised the question of how this should be incorporated into the process for the European Semester and the National Reform Programme, where **the social partners have previously**

played a clear role and where SALAR has contributed both as a social partner and as a representative of the municipalities and regions in the work. However, SALAR did not receive a response to this either.

So far, it seems that the process for the NRP has come to a complete standstill and that SALAR has been excluded from it.

BULGARIA

BICA – Bulgarian Industrial Capital Association

Founded in 1996, **Bulgarian Industrial Capital Association (BICA)** is the most extensively represented organisation of Bulgarian employers. It is also the most dynamically developing organisation of Bulgarian businesses, which is represented at national level. Members of the Association are over 90 branch chambers, representing more than 75% of the economic activities in Bulgaria, and over 10,000 enterprises that employ almost 500,000 people. BICA has a network of regional chambers in 2/3 of the municipalities in the country.

Bulgarian Industrial Capital Association is the only organisation that incorporates public companies and providers of services of general interests in the country, whilst also being the only Bulgarian nationally representative organisation of employers that is member of SGI Europe.

In the context of the drafting of the Bulgaria Recovery Plan, all the Bulgarian Employers' Organizations were constantly pleading to increase the share of the devoted funds for supporting real sector investments – from the current 8% to at least 20%. They propose that the increase comes from decreasing the planned grant component for making buildings and street lighting more energy efficient and financing such energy efficiency project via low interest rates, long terms credit lines, which then can be repaid through costs saved by less energy consumption.

However, **the Bulgarian Recovery Plan is not in a stage to present concrete projects.** It is a more general ambition of the Government to invest in specific areas. BICA's concerns are that the Government's plan does not address all the needs of the Industry, as investments in "real" business are still too low.

BICA would like to find support to increase the share of projects that will be proposed and implemented by the private enterprises, decreasing, for instance, the amount of money invested in energy efficiency of the buildings. Whilst they deem the latter also an important point to be addressed in the National Recovery Plan, they also believe that **citizens should co-invest such projects with certain percentage, which will release more money for Industry.** Current plans of the Bulgarian Government are that energy efficiency projects will be as grants; however, BICA estimates that their approach will ensure more added value and sustainable growth.

EFEE – European Federation of Education Employers

The education sector will play a crucial role in the recovery of the European Union as a whole, as it is evidenced by this sector's inclusion as **one of the 7 flagship areas for investment and reform.** Against the background of the digital and green transition, the European labour market will not only be required to upskill and reskill on a large scale but also prepare the next generation for a different and revitalised Europe. It is therefore unsurprising that many Member States place a large focus on the education sector within their national Recovery and Resilience Plans.

Below is a brief overview of a select number of national examples for education projects within the National Recovery and Resilience Plans.

Belgium

Education is a regional competence within the Belgian political structure and is therefore governed by the Flemish government on the one hand and the Walloon government on the other hand. The Flemish government has launched a plan called “Vlaamse Veerkracht: Hoe kan Europa de Vlaamse Veerkracht ondersteunen? | VLEVA” (Flemish Resilience: How can Europe support Flemish Resilience? | VLEVA) within the framework of the Belgian National Recovery and Resilience Plan. The main focus of this plan will be **on digital investments in education via a project called “Digisprong”**, which can be understood as the regional Digital Education Action Plan of Flanders.

In total €375 million will be invested in this plan to improve the quality of education by well-advised integration of digitalisation on the one hand and obtaining digital competences in all pupils and teachers on the other hand. The Digisprong is set up along four main pillars: **infrastructure, digital vision and policies, digital competences and environments**, and central support through the creation of a Digisprong Knowledge Centre.

Portugal

The Portuguese education system is strongly divided into private education institutions and public education institutions (state owned), which often leads to diverging policy initiatives for both types of institutions.

In order to safeguard the equality and quality of education for students of all ages, **it is paramount that the Portuguese National Recovery and Resilience Plan includes all types of education institutions**. The funds earmarked by the government for technological upgrading of schools and training centres should therefore be available for all schools and training centres and not only for public organisations. The total amount earmarked for qualifications (in two themes: qualifications and digital upgrade of schools) is 10% of the Portuguese NRRP, which will most likely not be enough to reach the ambitious targets of the twin transitions.

Poland

The Polish National Recovery and Resilience Plan concentrates mostly on the twin transitions and the improvement of the healthcare system. Its general priorities were selected some months ago and consequently **about 1,500 concrete projects were submitted** (to the Ministry which prepares the Polish NRRP) by various government institutions and non-governmental organisations.

The projects are currently being selected to be introduced to the final version of the Plan. According to the education authorities about €1 billion will be dedicated in Polish National Recovery and Resilience Plan to the **digitalisation of primary and secondary schools**.

The Polish Union of Education applied for a project on the digitalisation of Polish universities, which is valued at 500 million Polish Zlotys (equal to €110 million) called “Digital University”. Whilst this amount is necessary to fulfil the objectives set out in this project, **it is currently unknown whether the Polish authorities will respect the project application in its full dimension**.

Annex I: SGI EUROPE MEMBERS PROJECTS FOR THE GREEN TRANSITION

ITALY

Utilitalia – Italian Federation of Utilities

M2C1 – Circular Economy and Integrated Waste Management Cycle

Utilitalia projects belonging to Mission 2 and Component 1

Mission	M2 - Green revolution and ecological transition
Component	C1 - Sustainable agriculture and the circular economy
Project area	2. Circular Economy and Valorisation of the integrated waste cycle
Typology of projects	Investments to enhance and close the waste cycle through the construction of new plants or the modernisation of existing ones, from collection to sorting and recycling. Particular attention is given to those interventions aimed in particular at addressing critical situations in waste management in the large metropolitan areas of Central and Southern Italy (e.g., metropolitan cities of Rome, Naples, Bari and Palermo), as well as to plants to increase the collection of waste electrical and electronic equipment (WEEE) and to close the sewage sludge management cycle.
Impacts	The interventions are aimed at mitigating the environmental impacts of waste management systems, both in terms of reducing climate-changing gas emissions and protecting the environmental heritage. The proposed investments can generate an employment impact of about 48,000 people.
Value of projects	€4.3 billion

M2C2 – Renewable Energy Production and Distribution

Utilitalia projects belonging to Mission 2 and Component 2

Mission	M2 - Green revolution and ecological transition
Component	C2 - Renewable energy, hydrogen and sustainable mobility
Project area	1. Production and distribution of renewables and support for the supply chain
Typology of projects	The projects concern support for the renewable energy sector, through the development of photovoltaic plants and storage systems for the proper management of energy demand. Other interventions concern the improvement of the resilience of the electricity grid, through the modernisation and digitalisation of networks, the development of new district heating backbones (or the expansion of existing ones), the valorisation of biomethane, in line with the objectives of the Italian Energy and Climate Plan (PNIEC), and the decarbonisation of the energy sector.
Impacts	The projects aim to decarbonise the energy and transport sector, reduce greenhouse gas emissions and improve air quality in cities. The proposed investments can generate an employment impact of around 35,000 people.
Value of projects	€2.6 billion

M2C2 – Hydrogen Strategy

Utilitalia projects belonging to Mission 2 and Component 2

Mission	M2 - Green revolution and ecological transition
Component	C2 - Renewable energy, hydrogen and sustainable mobility
Project area	2. Investments in the hydrogen chain
Typology of projects	Pending the definition of a National Hydrogen Strategy, the project line includes interventions aimed at the construction of new electrolysis plants to support existing renewable energy plants. Some of these plants will allow the storage of hydrogen to be used as an energy carrier for vehicles.
Impacts	The interventions are aimed at encouraging the development of the green hydrogen supply chain, which can also be used as a biofuel and to support renewable energies. The proposed investments can generate an employment impact of around 5,000 people.
Value of projects	€400 million

M2C2 – Sustainable Mobility

Utilitalia projects belonging to Mission 2 and Component 2

Mission	M2 - Green revolution and ecological transition
Component	C2 - Renewable energy, hydrogen and sustainable mobility
Project area	3. Sustainable local transport, cycle routes and renewal of rolling stock
Typology of projects	Projects dedicated to renewing the company's vehicle fleet by replacing vehicles running on traditional fuels (diesel and petrol) with vehicles running on alternative fuels with less impact (CNG, LNG, methane, biomethane) or electricity.
Impacts	The projects are dedicated to the decarbonisation of the transport sector, with a particular focus on reducing the rate of emission of climate-changing gases and fine particles generated by vehicle traffic. The proposed investments can generate an employment impact of about 14,000 people.
Value of projects	€1.1 billion

M2C3 – Energy Efficiency

Utilitalia projects belonging to Mission 2 and Component 3

Mission	M2 - Green revolution and ecological transition
Component	C3 - Energy efficiency and upgrading of buildings
Project area	2. Energy and seismic efficiency in private and public buildings
Typology of projects	Projects dedicated to improving the energy and seismic efficiency of the industries and annexes of Utilitalia Associates, through the construction of new buildings according to the most modern technologies, the thermal insulation of the building envelopes and the replacement of the winter air conditioning systems.
Impacts	The projects aim to save energy and thus improve the environmental impact of buildings. The proposed investments can generate an employment impact of about 31,000 people.
Value of projects	€2.4 billion

M2C4 – Hydrogeological Risk Mitigation

Utilitalia projects belonging to Mission 2 and Component 4

Mission	M2 - Green revolution and ecological transition
Component	C4 - Protection of land and water resources
Project area	Action on hydrogeological instability
Typology of projects	Projects aimed at mitigating hydrogeological risk by securing slopes and land, as well as network facilities and infrastructure.
Impacts	The interventions tend to reduce the risk of occurrence of calamitous events such as landslides and floods. The proposed investments are likely to generate an employment impact of about 900 people.
Value of projects	€74 million

M2C4 – Water Resources Sustainable Management

Utilitalia projects belonging to Mission 2 and Component 4

Mission	M2 - Green revolution and ecological transition
Component	C4 - Protection of land and water resources
Project area	Invasions and sustainable resource management
Typology of projects	Primary water infrastructures for security of supply. These interventions concern the extraordinary maintenance, upgrading and/or completion of water infrastructures, artificial reservoirs and dams, and primary adduction pipelines. The interventions concern the entire national territory, with a particular focus on water schemes in the South with highly critical infrastructures.
Impacts	The projects aim to improve the resilience of networks and contribute to the protection of water resources to counteract the effects of ongoing climate change (e.g., droughts). The proposed investments can generate an employment impact of around 72,000 people.
Value of projects	€7.7 billion

M2C4 – Smart Network

Utilitalia projects belonging to Mission 2 and Component 4

Mission	M2 - Green revolution and ecological transition
Component	C4 - Protection of land and water resources
Project area	Water distribution networks and digitisation of monitoring networks
Typology of projects	Investments aimed at modernising water distribution networks with the objective of drastically reducing losses. Projects are also dedicated to the digitalisation of monitoring systems to ensure control of the state of the infrastructure thanks to predictive maintenance and timely intervention.
Impacts	The projects aim to improve the resilience of networks and contribute to the protection of water resources to counteract the effects of ongoing climate change (e.g., droughts). The proposed investments can generate an employment impact of around 30,000 people.
Value of projects	€3 billion

M2C4 – Sewage and Water Treatment Plants

Utilitalia projects belonging to Mission 2 and Component 4

Mission	M2 - Green revolution and ecological transition
Component	C4 - Protection of land and water resources
Project area	Sewerage and purification
Typology of projects	Investments in sewerage networks and treatment plants with the priority aim of contributing to overcoming the relevant EU infringement procedures as well as to the expected improvement of the quality of receiving water bodies.
Impacts	The projects aim to improve the quality of water resources and the environment in general. The proposed investments can generate an employment impact of around 28,000.
Value of projects	€2.9 billion

Investment Examples with Issues

Chemical Recycling

ISSUE: Given the difficulties in financing projects dedicated to energy recovery, can waste-to-chemicals recycling plants be considered as recycling plants?

Mission	M2 - Green revolution and ecological transition
Component	C1 - Sustainable agriculture and the circular economy
Project area	2. Circular Economy and Valorisation of the integrated waste cycle
Description	The project aims to exploit the chemical energy of low-value materials (CSS and PLASMIX) through the production of methanol and hydrogen. The proposed plant constitutes an absolute innovation, as no industrial-scale plants capable of carrying out the process of producing hydrogen and methanol from CSS/PLASMIX have been built.
Impacts	The hydrogen produced can have various applications: 1) Use as fuel for urban mobility (fuel cell powered buses) for the reduction of urban pollution. The use for urban mobility (electric buses with fuel cells powered by hydrogen) requires 0.03 kg of hydrogen per km of travel. 2) Use as fuel for maritime transport (use in the port area as fuel for ships requires further detailed assessment). 3) Use (alone or in a mixture with natural gas) as fuel in industrial users with burners fuelled by natural gas.

Sludge Heating Treatment

ISSUE: Can interventions for the thermal treatment of sludge, without further specific indications on its further valorisation, be part of circular economy projects?

Mission	M2 - Green revolution and ecological transition
Component	C1 - Sustainable agriculture and the circular economy
Project area	2. Circular Economy and Valorisation of the integrated waste cycle
Description	Reduction in the amount of sludge to be disposed of by setting up a centralised sludge treatment system, achieving economic valorisation and reuse of material now considered as waste.
Impacts	The project intervention would allow the future technological rehabilitation of the existing sludge line currently not used to its full potential.

Implementing Entity

ISSUE: What profiles are foreseen to apply as an implementing body? (e.g., can networks of companies or temporary associations of companies be considered as such)?

Mission	M2 - Green revolution and ecological transition
Component	C1 - Sustainable agriculture and the circular economy
Project area	2. Circular Economy and Valorisation of the integrated waste cycle
Description	An enterprise network presents a regional infrastructure network project for the treatment and transformation of civil wastewater sewage sludge. The project responds in a systemic way to the need to transform the civil wastewater sewage sludge produced within the Piedmontese sewage treatment chain into compostable mixed soil improver for use in agriculture (produced with sludge from areas with a reduced industrial presence) and storable ash from which phosphates can be obtained (produced with the thermal oxidation of sludge from areas with a significant industrial presence).
Impacts	Completion of the integrated water cycle in a circular economy logic, through the transformation of biological sludge from the treatment of urban wastewater into compost to be reused in agriculture and inert and easily storable ash from which phosphates can be extracted for use as fertiliser; - Recovery of nutrients through agronomic use of compost and recovery of thermal and electrical energy from oxidation of dried sludge; - Increase in the level of environmental safety, with the reduction of odour emissions caused by the storage of dewatered sludge; - Closure of the production cycle in the region and a significant increase in the number of jobs in the sector.

State Aid

ISSUE: Regarding district heating projects, there is a lack of information on the compliance of this type of investment with State aid rules.

Mission	M2 - Green revolution and ecological transition
Component	C2 - Renewable energy, hydrogen and sustainable mobility
Project area	1. Production and distribution of renewables and support for the supply chain
Description	Expansion of district heating systems by recovering waste heat available at a thermal power plant. The project involves: (i) interventions on the thermoelectric power plant, (ii) construction of a double pipeline for heat transport, (iii) large thermal storage (iv) pumping systems, (v) further expansion of the city distribution network.
Impacts	Main benefits of the projects: - Recovery of about 1000 GWh/year of waste heat from the power plant; - Energy savings: over 90,000 TOE/year; - CO2 emissions reduction: over 200,000 t/year; - Reduction of local pollutants: over 200 t/year (NOX and PM10).

ASSTRA – Associazione Trasporti

Project	Increasing and renewing the bus fleet
Description	The average age of the bus fleet is 12.3 years, well above the average age in the main EU countries, with inevitable repercussions on the environment, the economy and the quality of the service provided. The state resources dedicated to bus renewal, amounting to around €5 billion, net of the beneficiaries' share of co-financing, without new measures, will lead to a gradual ageing of the bus fleet, which will reach an average age of over 17 years in 2033. In order to bring the average age up to European levels (7 years), while at the same time improving the environmental sustainability of the fleet through the spread of innovative engines, an additional €9.5 billion would be needed. Moreover, it would be ideal to concentrate these resources over a shorter period of time, up to six years, in line with the medium-term strategic planning needs required by the National Recovery and Resilience Plan, without prejudice to the production capacity of the vehicle production chain to respond in such a short time to sudden and conspicuous demand.

FRANCE

FEDEPL - Federation of Local Public Enterprises (LPE) Elected Officials

Proposals for relaunching energy and mobility renovation

Nearly 300 Lpe are involved in the field of energy renovation, most often in close complementarity with their main activity in housing or fitting out. This activity has increased significantly, and there are now even dedicated Lp.

FedEpl would like to recall that the Lpe range is **an essential tool for the massification of building renovation sites and to meet the objective of 500,000 renovated homes per year as of 2017 set by law n° 2015-992 of 17 August 2015 relating to the energy transition for green growth**. The target includes public and private residential buildings as well as those for tertiary use. The Fedepl also stresses that this is an activity likely to resume rapidly, at a sustained pace, and with a knock-on effect on the local sectors.

In this respect, the Lpe are in a position to **offer third party financing for all or part of energy renovation projects for public clients** (social housing organisations, local authorities, etc.) and private clients such as condominium syndicates, single-family homeowners, office owners, **via the refinancing proposed by the European Investment Bank (EIB) as part of a €400 million programme to support third party financing in France** and approved under the investment plan for Europe ("Juncker Plan").

However, the Lpe of third-party funding is still awaiting **authorisation by the National Housing Agency to support individual owners and co-ownerships that request it**. In addition, they are asking to be authorised to distribute the eco-PTZ (interest-free loan) under similar conditions to financial institutions.

An assimilation of collective loans to personal loans with regard to the application of the usury rate would also encourage the complete energy renovations of co-ownerships coordinated by third party financing Lpe.

The opening of the Energy Renovation Guarantee Fund (FGRE) to all loans allocated to efficient renovations carried out by Lpe of the energy transition would finally encourage the financing of works related to the improvement of the energy performance of existing housing.

FedEpl is also asking for an extension of the **advances granted by local authorities on the basis of Article L. 1522-5 of the General Code of Local Authorities to energy transition project companies.**

Ways of resuming the development activity of the "Local public development enterprises"

The managers of the 301 Lpe, whose main activity is development, noted the difficulties in resuming construction. The application of the guide to good practice published on 3 April by the OPPBTP (Professional Organisation for Building and Public Works Prevention) proves in many cases to be delicate in view of its lack of knowledge of the legal principles governing relations between the various players in the construction process.

In fact, by going beyond the regulations relating to the protection of the safety, health and hygiene of employees, the guide places on the contracting authorities the obligations that normally and logically fall within the competence of the companies, which complicates the negotiations on the takeover undertaken on a site-by-site basis.

Consequently, Fedepl asks to be involved, like the other representatives of the project owners, in the drafting of future guides and recommendations for professionals in the sector, in order to optimise their suitability to the reality of the territories and their appropriation by all stakeholders.

FedEpl welcomes the announcement of the establishment of a working group on the development of an insurance cover for exceptional events, such as pandemics, for the benefit of the companies.

FedEpl wishes to be associated with this working group and considers satisfactory the framework for the amicable settlement of the distribution of the additional costs related to the suspension of the construction sites and the necessary reorganisation that will result from the maintenance of the rules of social distancing.

The Local public development enterprises welcome the adoption of the provisions of order no. 2020-306 of 25 March 2020 relating to the extension of deadlines during the health emergency period and the adaptation of procedures during this same period.

However, they are still awaiting transitional provisions on the extension of the provisional sales agreements to achieve the purging of urban planning authorisations, the deadlines of which are provided for in the suspensive clauses of the contracts. FedEpl would also like to highlight the risks related to deconfinement that could legally weaken the posting of building permits.

Even though local public companies are the key players in the “Coeur de ville” programme and all types of targeted operations in town centres and city centres, Fedepl notes that the territories currently lack tailor-made tools to combat commercial vacancies and restore the attractiveness of their town centres. Local authorities would like to be able to entrust an operator with the responsibility of acquiring, managing and reselling shops with a view to revitalisation, by delegating to it certain prerogatives of public authority such as the right of pre-emption and expropriation.

This is the purpose of the new commercial revitalisation concession proposed by FedEpl to enable local authorities to have the best possible contract with the Local public development enterprises.

AUSTRIA

VÖWG Members

Topic	Expansion, renovation & construction of pedestrian and cycle path
Description	Cycling mobility and walking is an important contribution to climate protection and health as well as a measure to use less public space (e.g., compared to more space-intensive roads). Measures include, for instance, the construction of (barrier-free) pavements and cycle paths, the widening of pavements and cycle paths, and the improvement of pavement and cycle path edgings. In addition, existing combined pavements and cycle paths are converted into structurally separated pavements and cycle paths in order to increase road safety.
Pillars	Green transition

Topic	Decarbonisation of the building sector - Innovative energy concepts in residential development and public buildings
Description	In addition to a thermally high-quality outer surface of the buildings, the type of heating systems is elementary for an enviro-friendly energy supply of buildings. The conversion from fossil fuels to sustainable energy concepts (district heating, cooling, waste heat extraction, PV, etc.) in public or municipal buildings, together with the conversion in private households, represents an important contribution to the green transition.
Pillars	Green transition
Flagships	Power up; renovate

Topic	Geothermal energy - using hot groundwater in deeper layers of the earth for energy supply
Description	The heating sector must be brought into focus of efforts with regard to the decarbonisation of the energy system. District heating networks offer an ideal infrastructure to enable a system-based integration of renewable energies in densely populated areas. In terms of increasing the renewable share in the district heating sector, the utilisation of alternative and renewable forms of geothermal and ambient energy should be promoted.
Pillars	Green transition
Flagships	Power up

Topic	Provision and use of climate-friendly hydrogen to decarbonise public transport
Description	Hydrogen can not only contribute to the general CO2 reduction in the economy, but also specifically contribute to the decarbonisation of those sectors that are difficult to decarbonise. One of these sectors is transport. Where batteries in transport reach their limits - as in trucks and buses - the use of hydrogen makes sense. This can lead to a significant reduction in CO2 in public and local transport.
Pillars	Green transition
Flagships	Power up

Topic	Sewage sludge mono incineration to enable phosphorus recovery
Description	The incineration of sewage sludge offers the promising possibility of recovering the phosphorus it contains. Phosphorus is essential to produce fertilisers for agriculture. In this way, an important contribution is made to the new action plan for an EU circular economy.
Pillars	Green transition
Flagships	Power up

Topic	Establishment of integrated facility management in social housing - Building and energy monitoring
Description	Considered over the life cycle of buildings, running costs account for a much higher proportion than investments. In order to optimise the ongoing operation, the measurement of energy consumption is the central basis. By installing modern metering and sensors, the building can be optimally adjusted to demand and unnecessary energy consumption can be avoided. The installation of control and regulation systems or adaptation to the latest state of the art is also an essential prerequisite for making a major contribution to climate change.
Pillars	Green transition
Flagships	Power up; renovate

Topic	Expansion of the public transport network through densification in the inner-city area as well as urban-rural connections & improvement of micro-public transport. (incl. depots)
Description	Supporting the modal shift from individual transport to public transport. The expansion of local public transport should reduce individual transport in the future and thus reduce Co2 emissions. However, a continuous bus service throughout the day is difficult to implement in the outer parts of the urban area, which is why bus use is not as high as desired. Counteracting this problem means – in addition to creating new bus-, tram-, or trainlines – developing a micro-public transport system for these areas in order to offer low-threshold access to the use of public transport.
Pillars	Green transition
Flagships	Recharge and Refuel

Topic	Conversion of bus fleets to non-fossil drives
Description	The Clean Vehicles Directive calls for the conversion of fossil fuels to sustainable propulsion systems for road vehicles. This requires investments in building the appropriate infrastructure for the maintenance and charging of e-buses as well as the acquisition of the same.
Pillars	Green transition
Flagships	Recharge and Refuel

Topic	Expansion of PV systems on the roofs of public buildings, public transport stations and on the premises of public companies.
Description	Energy independence, decentralised systems, the use of renewable energy sources and alternatives in the event of disasters are important elements of the climate change mitigation and adaptation strategy.
Pillars	Green transition
Flagships	Power up; renovate
Topic	E-mobility: densification of the charging infrastructure for further electrification of transport, including more parking spaces in multi-storey and underground car parks, charging infrastructure for urban e-taxi fleets, addition of fast-charging infrastructure on important arterial roads
Description	The EU needs a climate-friendly shift in transport. By 2030, at least 30 million zero-emission vehicles should be in operation. This requires the further expansion of the charging infrastructure - for private vehicles, but also for e.g., taxi fleets. In addition, the expansion of charging options with fast-charging infrastructure at important main traffic arteries ensures the mobility of citizens and facilitates the broad switch to electrified transport.
Pillars	Green transition
Flagships	Recharge and refuel
Topic	Holistic refurbishment/renovation of existing buildings e.g., in social housing (community housing), care facilities, schools, childcare facilities, public cultural buildings, hospitals, etc.
Description	Supporting the target: Double the renovation rate by 2025 and promote deep renovation for better energy efficiency and climate-friendly buildings. Holistic renovations can include e.g., greening of facades/roofs, thermal facade renovations, decarbonisation of heating systems, conversion to LED lighting, installation of photovoltaic systems, etc.
Pillars	Green transition; inclusive, sustainable growth
Flagships	Renovate; power up; recharge and refuel; connect;
Topic	Battery storage system
Description	Enabling and support of fast black-starts in the high-efficient CHP plant and for balancing the stability of the high-level electricity grid. Energy storage makes an important contribution to the security of electricity supply in Europe. Innovative energy storage solutions will play an important role in the transition to a renewable energy system and in ensuring grid stability as a balance between fluctuating demand and generation (short-term and seasonal).
Pillars	Green transition; economic, social and institutional resilience
Flagships	Power up

Topic	Greening/renaturation of urban spaces
Description	If global greenhouse gas emissions continue unchecked, a doubling of heat days (daily maximum air temperature of at least 30°C) can be expected in urban areas by 2050. Inner-city areas are particularly affected by overheating and must therefore be cooled by means of planting and unsealing (renaturation). In this context, the planting of new trees in cities is an effective and sustainable measure against urban overheating. Healthy trees not only provide restful shade for people, but also reduce the heating of surfaces and improve the microclimate. The less radiation from the sun hits the buildings and surfaces, the less heat they give off at night. This increases the quality of stay, reduces health risks among the population and increases urban biodiversity.
Pillars	Green transition; policies for the next generation

Topic	Production of green gas (biogas) to substitute fossil natural gas (CO2 reduction)
Description	Feeding green gas or biomethane into the natural gas grid supports the phase-out of fossil energy sources and can make a significant contribution to CO2 reduction. The biogas is produced by recycling biogenic waste in a dry fermentation plant. This increases the share of renewable energy with regional added value and can create jobs in the environmental sector. In addition, soil improvement measures can contribute to the storage of CO2 and an optimisation/reduction of logistics routes for waste collection vehicles can be achieved.
Pillars	Green transition
Flagships	Power up

Wiener Lokalbahnen GmbH – Local Public Transport of the City of Vienna

Project	Creating future “green energy stations” in Lower Austria
Description	Rollout of greening measures and photovoltaic systems and integrating these into train stops (Badner Bahn).
Start	2020
End	2026
Budget (Mio. €)	2
Förder- und Finanzierungsschienen (Österreich, bestehend)	Klima- und Energiefonds; “MIP” (§ 4 PrivatbG 2004)
RFF Component	Power-up – renewable energy

Project	Creation of multimodal hubs in Lower Austria
Description	Strengthening the multimodal services along Badner Bahn train service by accelerating the rollout of “easymobil stations” (www.easymobil.at).
Start	2020
End	2026
Budget (Mio. €)	2
Förder- und Finanzierungsschienen (Österreich, bestehend)	Klima- und Energiefonds; “MIP” (§ 4 PrivatbG 2004)
RFF Component	Clean, smart and fair urban mobility

Linz AG

The coherence of all the proposed projects was reviewed using 62 criteria, derived from the “Work document for commission services - Guidelines for the member states regarding development and resilience plans” (SWD(2020) 205 final, 17.9.2020 and SWD(2021) 12 final, 22.1.2021).

Project	L2 – GMT – Green Mobility Tram Projekt Linz (Trams in the east of Linz - Second Track Hub above ground)
Division	LINZ LINIEN GmbH
Description	The creation of a second above-ground rail hub in the east of Linz is one of the most strategically important projects in public transport in Linz. In connection with the energy generation from biogas, this creates one of the most innovative and environmentally friendly zero-emissions sector-coupling projects in the communal space. In addition to the use of bioenergy from purification gas and energy from the biomass heating plant with energy-heat connection, the innovative “Bio Energy Tram Innovation Project Linz” is a comprehensive development of areas in the east of Linz previously under-served by public transport. The routes are served by energy-efficient trams of the newest models, primarily on their own tracks and where technically possible, lawn tracks. The connection of the existing tram lines 1 and 2 in the north of Linz will be integrated from the links of Brückenstrasse to Bulgariplatz, to the south of the centre of Linz, again into lines 1 and 2. Thus there is relief of the overloaded public transport hub Hauptbahnhof-Landstrasse and a very attractive public transport development of the significant passenger destinations in the east of Linz. The project involves the construction of an approximately 4.5 km long tram route with 8 new multi-modal stops and integration into the existing system. For the operation of this stretch to the exiting turning loops, 14 new trams and a depot are required. The most significant passenger frequency relevant areas such as the hospitals, health and educational facilities and large companies and event facilities are directly connected with this route plan. This results in the high number of expected passengers of about 34,000 people per day, as predicted by the ÖIR (Austrian Institute for Spatial Planning). Approximately 30,000 people live in the immediate catchment area of the stops and about 30,000 people work in that area, among them many commuters.
Flagships	Recharge & Refuel
Term	2021-2026
Investment volume	Above ground tram route €94 million Depot €20 million Vehicles €56 million Total €170 million

Project	L4 - Two efficient emission-free bus lines and establishment of a hydrogen refuelling station incl. Electrolyzer
Division	LINZ LINIEN GmbH
Description	The two new environmentally friendly Zero Emission bus lines, with a total of 15 hydrogen articulated buses and the construction of a hydrogen refuelling station incl. electrolyzer and a parking site with workshops are strategic environmental flagship products for Linz and Upper Austria. A direct public transport connection between Pichling in the south of Linz, the industrial area at the port in the east of Linz and Ebelsberg in the south and Urfahr in the north of Linz are some of the most important strategic development plans of the City of Linz. Due to the extensive building development and concentration of the residential areas in Ebelsberg and Pichling, a public development of the residential areas and the connection with the areas with higher employment density are a necessity for the future of the City of Linz. The objective of the new lines is on the one hand to ensure the Modal Shift away from individual transport to more public transport. In addition, the use of hydrogen buses will also provide a significant contribution to CO2 reduction and a significant contribution can be made to the fulfilment of climate goals. Both lines should achieve a travel time benefit compared to private cars, as they run on the most traffic-free routes, and thus be a real motivation for switching to public transportation. By the development of new areas of operation and route sections which were not previously served, such as the use of bypass roads. Through the new lines, according to ÖIR there should be a passenger increase of 1300 people per working day in the entire LINZ AG LINIEN network. The annual mileage of both lines is approximately 530,000 km. The use of emission-free hydrogen buses on these lines also means an annual CO2 reduction of approximately 1075 tonnes compared to the use of CNG buses with Euro VI drives.
Flagships	Connect (Transport)
Term	After approval of the resources and order by the City of Linz, the planning of the overall project is estimated to be started at the end of 2021. The overall project period is estimated to be 4 years, so that implementation and commissioning can occur at the end of 2025.
Investment volume	A total of €90 million, of which €75 million for the required infrastructure (refuelling station, workshops and depot) and €15 million for the buses.

Project	LSGW 1 – Construction of a 2nd biomass CHP plant (at the Mitte [Centre] district heating power station)
Division	LINZ POWER GAS HEAT
Description	New biomass CHP plant at the Mitte [Centre] district heating power station, fuel untreated woods, expansion of the existing fuel preparation with day pumps, connection to the infrastructure system on the power plant premises. The highest fuel flexibility and fuel exploitation, conversion of approx. 300 GWh of wood into approximately 200 GWh of district heat and 70 GWh of electricity. Fuel heat approx. 40 MW, about 30 MW district heat (in combination with the other projects flue gas condensation and heating pumps) and approximately 10 MW of electricity generation. Fuel provision in a circumference of up to 100 km from the city, regional products preferred. Through the existing fuel business and the fuel preparation and storage possibilities of the LSGW since 2005, there is a long-term regional supply prospect until 2050.
Flagships	Power Up
Term	Government approval 2021 – 2022, Construction and assembly and commissioning to 2025, Power connection from Quarter 3 2025, Life span of the plant 20 years - to 2045, Possible extension of life span by a further 10 years to 2055 possible.
Investment volume	€30 million

Project	LSGW 2 – Construction of a flue gas heat-use-and condensation plant (at the Mitte [Centre] district heating power station)
Division	LINZ POWER GAS HEAT
Description	The renewable energy conversion plants at the site of the Linz Mitte [Centre] district heating power plant, like biomass CHP 1 and 2, residual material heating plant and possibly a sludge mono incineration plant currently do not have any plants that use the exhaust from these plants further for energy for district heat. This energy efficiency measure would convert a common use of approx. 150°C exhaust gasses from these solid fuel boiler plants into usable district heat using large heat pumps. Thus a “heating value use”, meaning massive energy efficiency increase would be possible to a degree of 10-15%. Electricity, steam or hot water can be used as the operating power for the heat pumps. The achievable additional heat yield can be up to 100 GWh per year. The total district heat output for Linz is approximately 1200 GWh per year.
Flagships	Power Up
Term	Government approval 2021 – 2022 Construction and assembly and commissioning to 2025 Power connection from Quarter 3 2025
Investment volume	€30 million

Project	LSGW 6 – Electrification of Transport
Division	LINZ POWER GAS HEAT
Description	The electrification of transport is an important objective to achieve climate neutrality in Europe. This initiative involves multiple currently exclusively fossil-fuel powered means of transport, tourism and transport industries and the corresponding amount of renewable energy. In order to achieve the goal of further electrification of transport in the region of Upper Austria, 10% of the parking spaces in all parking facilities and garages will be equipped with charging infrastructure. Thus we achieve that, generally visible, the density of charging options rises significantly and the fears of the population of not having sufficient charging options available is reduced accordingly. This diverse expansion of charging options is supplemented by quick-charge infrastructure in the region. In this, quick chargers will be installed on important main traffic routes, but also in the area to enable a sufficiently developed network for a wide-ranging transition to e-mobility. The goal is to achieve a critical number of charging options - nearly 20,000 available parking spaces in the region: – 1000 charging points in public parking facilities – 1000 charging points on the edge of the street – 50 quick-chargers for broad acceptance of a transition to e-mobility. The public charging points are fully integrated into the Austrian and EU-wide charging network and coordinated throughout Austria via the Federal Association of E-Mobility Austria (BEÖ) to be used barrier-free. The charging infrastructure for suitable for exact billing of kWh and can be used without a contract with one provider. With the provision of charging points, the transition from 200,000 fossil-fuelled vehicles to e-vehicles is stimulated by 2030. This represents a savings of C)2 of 560,00 tonnes per year.
Flagships	Power Up; Recharge & Refuel The expansion of the three categories of locations (underground garages, roadsides and quick chargers) is done simultaneously.
Term	Planning phase: 2021 Roll Out Phase 1: Underground garages and quick-chargers 2022-2024 Roll Out Phase 2: Roadside 2023- 2025
Investment volume	Expansion of all charging points incl. network connections and service provision, excavation and foundation works, partial covering for quick-chargers, ground marking and signage, online connection, IT integration and monitoring and settlement processes €10 million.

Project	LSGW 7 – Electrification of berths along the Danube
Division	LINZ POWER GAS HEAT
Description	The electrification of transport is an important objective to achieve climate neutrality in Europe. The Danube is enjoying increasing popularity as a transport route, and the greatest growth was seen above all in the cruise ship traffic in recent years. Thus the frequency of occupancy of the berths by vessels rises accordingly, which during their stay create the required electrical energy for hotel operations with diesel aggregates and cause local emissions (CO₂, NO_x, noise, vibrations...) during the time they are docked. Concretely, more than 1 million litres of diesel per year are combusted just in the docks in Upper Austria. To avoid these emissions, land-based power plants will be constructed at 9 dock locations in Upper Austria with an electrical provision of 5 megawatts. The electrification of the ship berths for cruise ships prevents the combustion of 1 million litres of diesel per year, representing a CO₂ reduction of 8000 tonnes a year. In addition, the fine dust and NO_x load in densely occupied areas is significantly reduce. We have a relevant consequence estimation (calculation of emissions avoided).
Flagships	Power Up; Recharge & Refuel
Term	Securing locations and approval procedure 2021 Realisation of technical facilities and IT system (digitization) 2022 Completion Commissioning Trial Run 2022 Regular operations from 2023 season
Investment volume	€4.6 million

Project	LSGW 9 – District cooling for server rooms, offices and educational building Wiener Strasse
Division	LINZ POWER GAS HEAT
Description	During the construction of an additional Linz AG administration building at the location of the corporate headquarters in Wienerstrasse, there will be installation of a new innovative climate-friendly air conditioning unit. This facility will not only provide the newly constructed building but also the existing administrative building as well as a data centre at the Linz AG site. In addition, external customers will be provided with air conditioning first in the new office building and an existing training centre. The investment consists of a generation unit and an underground district cooling network with a length of about 700 meters as well as district cooling transfer stations. The investment volumes will be a total of €7 million, of which €2 million for the district cooling network and the district cooling transfer station and €5 million for the facility technology. The facilities technology is laid out so that the highest degree of environmentally friendly effect can be achieved with the most economical investment possible. The primary cooling generation is done using an absorption cooling machine operated by district heating with a performance of around 700 kW - this investment-intensive facility is designed to that the constant basic share of cooling can be covered. The district heating network required to power the absorber is on site, so in the summer, excess heat in the summer can be used. Using a 1000 kW free cooling unit, the environmentally friendly cooling is further increased. For the rest of the required cooling, normal electrically driven cooling units are installed that can be designed so that the cold peaks can be covered and serve to prevent failure. In total, throughout the entire building technology, the required cooling peak performance of around 5000 kW is covered. An additional buffer storage unit prevents load peaks and also compensate for short-term facility failures. In the final expansion, around 11 GWh of cooling can be provided to the customer - with the facility configuration, in the final expansion, around 60% of the cooling of the cooling can be generated in an environmentally friendly manner. In this way, 200 tonnes of CO₂ can be saved each year through cooling generation. An additional positive aspect of the absorption cooling unit is that the already strongly strained electrical network will not suffer an additional load. In addition, five decentralised cooling generation system can be replaced by a single central air conditioning generation system, which is an overall gain in efficiency. The facility configuration planned has strongly environmentally relevant advantages in the area of the modern coolant used with a very low GWP (global warming potential) of seven, because old existing equipment operated with coolants with a GWP of approximately 1,430 will be replaced.
Flagships	Power Up
Term	2022 – 2025
Investment volume	€7 million

Project	M2 – Charging Station Management NEW
Division	MANAGEMENT SERVICE LINZ GmbH
Description	Charging station management (CPMS) enables one's own staff and customers of roaming partners to charge e-cars at the charging stations in greater Linz and at other stations in Austria and abroad. In the future, land-based power facilities will be also used for shipping, refrigerated lorries, company fleets and home charging stations for e-company cars. In order to be competitive in the very emergent e-mobility mass market, the systems and processes required must be customer friendly, efficient and cost-effective. The realisation of these systems is associated with high expenses and costs. In addition, the systems used are often hard to adapt to the IT environment of the company. Starting with these considerations, the plan is to establish a tailored CPMS system that can be used by all member companies in the Federal Association of Electric Mobility Austria (BEÖ). The goals: – The CPMS system tailored for energy providers, which fits optimally into the IT environment and provides all member companies with cost-efficient services. – A highly scalable and multi-client capable back-end and control of the e-charging infrastructure and execution of charging processes. – A system already established on the market that fulfils the existing market requirements and which can be expanded to meet future requirements. The possibility to control private charging points in single and multi-family homes, which should be intelligent in the future, to use the existing network and production infrastructure, as well as to be able to offer new business models such as special rates or V2G offerings (Vehicle to Grid). – The full integration of a residential solution with decentralized load and charging management for small to very large establishment. The solution will also be used for other applications with a larger number of charging points such as hotels, underground garages, grocery stores, etc. – More resources to the operation and the further development of the system to be able to offer more and better quality services for lower prices. – Improvement of the charging experience for the customers and rapid help/problem solving in the event of charging problems. – Higher system availability with simultaneous cost savings through the elimination of Hubject Roaming Platform for roaming between the partners (inter-platform roaming). – In addition to e-cars, the CPMS land-based power plants can also serve shipping, refrigerated lorries, company fleets and home charging stations for e-company cars
Flagships	Recharge & Refuel
Term	11/2020 – 12/2025
Investment volume	€2.5 million

Project	S6 – Conversion UV Disinfection in the Waterworks of Scharlinz and Heilham
Division	LINZ SERVICE GmbH
Description	In the waterworks at Scharlinz, ground water is acquired in four plants from a total of eleven springs. The consensus quantity under the water permit is 45,000 m³ /day, with which 220,000 residents can be supplied. Ground water is taken from a total of three spring facilities by the Heilham waterworks. With a consensus quantity of 10,300 m³ /day, it supplies over 50,000 residents. Both of these waterworks are thus significant pillars of water supply for the City of Linz and for the surrounding communities. To prevent any microbiological germination in the pipe network, both of these waterworks perform transport chlorination through the addition of an aqueous chlorine solution in the provision springs. Within the framework of the current principle study to create a future-proof provision concept for the water provisions facilities of LINZ AG it was found that a chlorine-free operation of the spring facilities is fundamentally possible and also desired after relevant preliminary investigations. In the future, the spring chlorination will be replaced by UV disinfection. Thus there will be a chemical free water acquisition process, so that the use of chlorine gas for water disinfection can be avoided. In addition, the previous customer complaints about chlorine gas will be eliminated. In order to evaluate the fundamental suitability of the quality of the ground water, in the first step, the chlorine directly in the springs will be switched to network chlorination. Thus, the actual raw water quality can be assessed. Within the framework of an intensive, accompanying ground water monitoring in the residential areas and in the springs of both waterworks, the water quality will be examined with regard to microbiological load and the re-germination tendencies and the suitability for UV disinfection. In a pilot study, UV systems will be selected based on this data. Fundamentally, devices with low pressure and medium pressure streams can be used for UV disinfection. According to current knowledge, each waterwork exit point will be equipped with a UV treatment system with multiple UV reactors. For safety reasons, such as in the case of an introduction of germs into the distribution network, there should also be sufficient disinfection capacity can be maintained through free chlorine or chlorine dioxide (emergency chlorination). Normally, the disinfection will take place only using the UV systems. With this, in the future, the current disinfectant use of about 800 kg/year of chlorine gas in the waterworks at Scharlinz and Heilham can be completely avoided. This is consistent with both the demand of our customers for drinking water free of chlorine and odours and on the other hand is a significant contribution to relieving the environment with regard to use of chemicals.
Flagships	Power Up
Term	4/2020 – 3/2023
Investment volume	€0.8 million

Project	S9 – Green Gas
Division	LINZ SERVICE GmbH
Description	Recycling of approx. 65,000 t/a of biogenic waste in a dry fermentation plant, to produce green gas or biomethane for feeding into the natural gas network. The bio-waste (biotonnes) from separated collection as well as the collected green and cuttings serve as input material. They will be processed before fermentation. Impurities are removed, which are then input into the existing thermal recycling. The prepared biogenic waste is then recycled in a dry fermentation plant. During the fermentation in two fermenters, 3.5 million Nm³ /a (approx. 35 GWh/a) of renewable energy in the form of biomethane (green gas) is acquired which can then be input into the grid. After the fermentation step solid and liquid fermentation residues are produced, which are transformed into finished compost and/or bio-fertilizer/soil improvers after post-processing, which can be used as a loop volume in agriculture. In order to minimize the yield path with agricultural vehicles, the preparation of the solid fermentation residues, as well as the distribution of the liquid fermentation residues is proposed near to the final recycling plants. In order to be able to use all of the synergies with the present equipment fleet, the construction in the vicinity of the energy centre “Linz Mitte - FHKW” site is essential.
Results	The following resulting effects can be gained: – Production of green gas to supplement natural gas (CO₂ reduction). – Increase of the share of renewable energies with regional added value. – Creation of jobs in the environmental area. – Contribution to biological agriculture (bio-fertilizer or compost). – Contribution to storage of CO₂ through soil improvement measures (reducing carbon, improvement of water storage in the soil). – Optimisation/reduction of the logistics routes for waste collection vehicles. – Utilization of the synergies with the existing facilities: • Recycling of the heat released from energy generation for fermentation/gas processing (instead of natural gas as a heating medium). • Possible recycling of the fermentation exhaust as combustion air in a biomass plant (eliminating odours). • Use of present infrastructure (scales, plant lab, extinguishing systems, ...). • Direct input of biomethane into the natural gas network
Flagships	Power Up
Term	2021 – 2025
Investment volume	€60 million resulting from costs of the UVE/UVE UVP approval, basic provision through land acquisition (port basin), construction work, mechanical equipment, assembly and commissioning

Project	S14 – Upgrade of Sewage Treatment Plant
Division	LINZ SERVICE GmbH
Description	Within the framework of the project, parts are planned for the implementation of energy efficient technologies which are used in terms of climate protection of a sustainable energy management. The goal is an energetic use of the wastewater contents and the reduction of the required ventilation energy. The measures serve to increase the capacity of the wastewater cleaning, energy production and the energy efficiency including further digitization of the process technology. Through the construction of a polymer dosing plant in the area of the primary sedimentation basin, more carbon removed from the waste water flow and transformed in the waste containers into additional biogas. The biological level is thus relieved, whereby the energy requirement for the air supply is reduced accordingly. A significant component of the project is the installation of a large membrane aerator in the aeration tanks of the wastewater treatment plant. The specific oxygen input is improved and the energy requirement for aeration is reduced. On the other hand, the oxygen supply capacity is increase, so that during peak times, the oxygen limitation of the biomass is avoided and ammonia peaks are reduced during the process. The retrofitting of the input area of the aeration tanks with lowering slides enables the operation of the biological level in step-feed. This measure increases good use of resources adding to the treatment of the capacity of the sewage treatment plan. The construction of a separate central water treatment plant serves to increase efficiency of the nitrogen removal and thus the increase of energy efficiency. The upgrade of the mechanical excess sludge thickening (MÜSE) to optimize the thickening result provides for optimal use of the septic tank. Within the framework of the project, the acquisition of energy efficient gas motors with the necessary accessories (gas desulphurisation, siloxane removal, separation of the septic gas system from landfill gas, revitalization of the gas storage or new gas storage) are planned. The electrical effect of new block heating plants can be assumed at about 40% and thus falls far above the effect of the existing gas motors (33%). The energy production from biogas is therefore significantly increased. The excess heat will be further sent to the biomass heating plant at Asten. The expansion of the exhaust gas treatment serves for the improvement of exhaust quality and thus to environmental protection and site security. During a PLS renovation, digitization of the operating processes is furthered.
Results	The goal of the planned project is to realize sustainable energy management at the site of the regional sewage treatment plant Linz-Asten with the implementation of energy-efficient technologies and aggregates, to reduce energy consumption of the plant over the long term and in the future, to achieve increased energy production and decoupling. Through optimal exploitation of the wastewater resource, the potential of organic wastewater products turning into biogas production can be exhausted in the best way possible. In addition to the increase in energy production with increase of creating one's own power, excess energy and heat can be fed into the supply network and be available for communal households. All measures that enable a reduction of the energy demand, significantly contribute to the reduction of indirect CO2 emissions. In total, an effect of about 6000 MWh / year of electrical energy potential will be gained (savings+additional production). Thus, the Global Warming Potential is reduced as a climate protection effect of a total of approx. 1400 tones of CO2-eq/year.
Flagships	Power Up
Term	2021 – 2026
Investment volume	€10 million

Annex II: SGI EUROPE MEMBERS PROJECTS FOR THE DIGITAL TRANSITION

ITALY

Utilitalia – Italian Federation of Utilities

M1C2 – Transition 4.0

Utilitalia projects belonging to Mission 1 and Component 2

Mission	M1 - Digitalisation, innovation and security in PA
Component	C2 - Digitalisation, innovation and competitiveness of the production system
Project area	Transition 4.0
Typology of projects	Investment in innovation and digitalisation of businesses through the development of sensors as well as hardware and software devices to improve business processes and products.
Impacts	The proposed investments can greatly improve the company's performance as well as generate an employment impact of approximately 3,500 people.
Value of projects	€261 million

ASSTRA – Associazione Trasporti

Project	Implementing the project of digitisation of transport
Description	The implementation of the digitalisation of the transport service, with specific reference to the dematerialisation of tickets, would allow a development that was already fundamental in the pre-COVID-19 concept of mobility and is now essential following the epidemiological emergency.

AUSTRIA

VÖWG Members

Topic	Improving the framework conditions for digital teaching and learning in kindergartens and compulsory schools (e.g., promotion of digital end infrastructure, indoor cabling, purchase of mobile equipment)
Description	Contemporary, modern and state-of-the-art pedagogy needs better digital frameworks, systematic training of teaching staff and state-of-the-art teaching materials. Current funding for digitalisation usually only considers external areas of educational buildings. In order to successfully meet the challenges in education and enable innovative teaching and learning methods, it would be desirable that the infrastructure in the building (internal cabling, empty conduits, WLAN provision) as well as the purchase of (digital) end devices (beamers incl. ceiling mounts; laptops for secondary schools) are also taken into account.
Pillars	Digital transition; policies for the next generation
Flagships	Connect

Topic	Digital, transparent facility management (in social housing). IT, data and digitalisation strategy in public housing companies (big data analysis, interface and data cleansing, etc.)
Description	Public housing companies have the potential to set new standards in the field of digitalisation and innovative data management. An IT infrastructure at the highest level is to be created, which will make the management and modernisation of the residential buildings much more efficient and gradually improve the services for tenants. At the same time, the improvement of the digital skills of the employees will be ensured and the joint transformation of procedures and processes will be initiated.
Pillars	Digital transition
Flagships	Modernise

Topic	Digitalisation of services for clients (tenants) in social housing: Efficient, fast and transparent client communication via a modern, digital portal
Description	Efficient, fast and transparent, customised customer communication via a modern, digital portal, promotion of accessibility and transparency, in particular simplification of rent payments, increase in the efficiency of processes (damage repair) through digitalisation, improvement of customer interfaces. Such projects impress with innovation in the digital interaction between property management and tenants, but also have immense added social value for society as a whole. They not only boost the economy, but also promote social participation through digitalisation, addressing vulnerable population groups that are affected/threatened by social exclusion.
Pillars	Digital transition
Flagships	Modernise

Topic	Expansion of broadband internet in rural areas
Description	Broadband expansion has a positive impact on a wide range of areas, such as the economy, education and public services. The expansion of broadband connections in rural areas can bring many improvements, such as economic growth, the creation of additional jobs and campus supply for technology centres. Furthermore, participation in public administration and public life, more flexible work and education models with "home office" and "distance learning" as well as traffic reduction due to less commuter traffic are made possible. Five actual use case clusters are: Increasing economic competitiveness, CO2 reduction and improving traffic conditions, enabling equal educational opportunities, expanding e-government applications and improving revenues from agriculture and forestry.
Pillars	Digital transition; policies for the next generation
Flagships	Connect; modernise

Linz AG

Project	5G model region Upper Austria Climate Neutral Digitization of the rural areas
Division	LIWEST Kabelmedien GmbH
Description	Through the investment of €50 million from the RRF, in the rural areas of Upper Austria, nearly 132,000 households can be provided with broadband internet (fixed wireless access >100Mbps). This additional expansion of 5G infrastructure would include many communities in the federal state and thus allow for comprehensive provision through a fourth mobile services provider. In addition, in this stage of the expansion, primarily rural communities would be addressed, which currently have low connection speeds. More than 70% of the new households to be served currently have bandwidths under 30 Mbps (16% < 10 Mbps, 57% 10-30 Mbps). The comprehensive expansion of the rural areas is only possible with funding, because it is these decentralized settlement areas with few households cannot be economically connected. It is planned to provide power provision for the new infrastructure via renewable energy sources.
Results	The expansion of bandwidth has a positive effect on far-reaching areas, such as economy, education or the public services. The expansion of the broadband connections in Upper Austria can thus bring many improvements, such as economic growth, creation of additional jobs and campus provision for technology centres. In addition, participation in the public administration and public life, more flexible working and educational models with "Home Office" and "Distance Learning" as well as less traffic through a reduction of commuting is also possible. Five concrete use case clusters are: Increase in economic competitiveness, CO2 reduction and improvement of the transport connections, enabling equal opportunities, expansion of e-government applications and improvement of the agricultural and forestry earnings.
Flagships	Connect & Modernise
Term	03/2020 – 12/2026
Investment volume	€50 million

Project	M3 – Concept and implementation of IoT and BigData Topics
Division	MANAGEMENT SERVICE LINZ GmbH
Description	– Collect data from IoT devices in batch and real time (mass data), process it and analyse with artificial intelligence. – Creation of organisational and structural framework conditions. – Create concept for technical architecture and implementation of the use cases. – Creation of a lab environment to process mass data in real time with noSQL. – Creation and selection, acquisition and implementation of the technical infrastructure (IoT platform) and connection of the system. – Implementation of use cases (in cooperation with regional companies and start-ups). – Comprehensive analyses of the mass data with artificial intelligence to bring forth optimisation. – Providing data of public interest.
Flagships	Modernise
Term	04/2020 – 04/2023
Investment volume	€2 million

Project	N3 – Smart Meter Generation 4 Roll out
Division	LINZ NETZ
Description	The roll-out of Smart Meters of generation 4 fundamentally builds on the promotion of the Electricity Internal Market - Directive 2009/72/EC. LINZ NETZ GmbH as a responsible distribution network operator in greater Linz and 82 rural communities, through the use of Smart Meters, consumption and generation data of our power grid customers. This data of nearly 290,000 metering points are managed according to the data security requirements in central databases and provided to our market partners, such as energy suppliers, local authorities and customers. In addition, data such as switching status, alarms and events of Smart Meters are collected and sent to the central office. The Smart Meter represents a steppingstone to digitization of the distributor network of LINZ NETZ GmbH. The fulfilment of communication technical and security requirements requires the use of continually further developed hardware and software. The development of the Smart Meter software and the central software occurs successively. the implementation of a Key Management System (KMS) forms a part of this development. The KMS serves to protect and manage cryptographic key material and enables the import and export to and from authorized systems, such as the Workforce Management System, Meter Data Management System, Head End System, etc. The Smart Meters of this generation are equipped with an integrated customer interface. These interfaces offer the possibility to provide the use data to our customers using Wireless Mbus in real time, to import this data into a home automation system, for example, because on the one hand it leads to consciousness in the customers, by timely visualization of use data creating an understanding of energy use of equipment and on the other, the customers can control the load to increase energy efficiency. The KMS raises the level from a security point of view and thus enables secure communication with the Smart Meters. This secure communication forms the foundation for digitization of further internal processes and market processes. In addition, the measurement data collected by Smart Meters have significant advantages for grid planning and operation, because the effects of a high penetration of e-mobility and photovoltaics on low voltage networks can be seen immediately. The Smart Meters are a significant building block also for the creation of the energy communities planned in the renewable expansion act. The range of influence of this investment is manifold and includes LINZ NETZ GmbH internal and external stakeholders. Within companies, this investment has an effect on those professional who provider services throughout a meter life span. In this project, we have established cooperation with the following significant companies in the EU such as s&t (Austria), NES Smart Meter Production (Romania and Poland), Worldline (France) and Kapsch (Austria). In addition, apprentices can be associated and used during an apprenticeship in one of our educational workshops.
Flagships	Connect
Term	2020 – 2026
Investment volume	The costs for the Smart Meter Generation 4 Roll-out for Smart Meter end devices are: €15 million; KMS: €1.2 million; Services: about €1 million, activated own services in connection with the meter installation €5.8 million.

Annex III: SGI EUROPE MEMBERS' PROJECTS FOR MOBILITY INFRASTRUCTURES

ITALY

ASSTRA – Associazione Trasporti

Project	Renewing the fleet of local public transport trains
Description	The average age of the trains in circulation on the regional rail network is more than 20 years. The total amount of state resources dedicated to the renewal of the railway rolling stock is about €1.6 billion, net of the co-financing share pertaining to the beneficiaries. In order to bring the average age of the rolling stock of the so-called ex-concessionary railways to a value close to 15 years, it is estimated that additional resources amounting to about €1 billion will be needed in the next few years.
Project	Speeding up infrastructure and investment in fixed installations and rapid mass transport (metros, tranvie).
Description	The total amount of resources earmarked for rapid mass transport is approximately €7.2 billion. Despite the substantial appropriations made available by the Government from FSC resources and the latest budget laws, it is important to emphasise the heavy infrastructure gap that separates Italy from the main European countries. The overall need to keep up with the main European countries can be estimated at an additional €500 million per year.
Project	Increasing the safety of regional public rail transport
Description	The resources earmarked for measures to upgrade and modernise and for the safety of the lines interconnected to and isolated from the national rail network total some €2.3 billion. In order to ensure a stable and long-term funding framework for safety measures, extraordinary maintenance and development of the regional railway networks, as is the case for the network managed by Rete Ferroviaria Italiana, the establishment of a fund is proposed, with an endowment of €10 million for the year 2021, €20 million for the year 2022, €30 million from 2023 until the year 2034.
Project	Promoting urban regeneration of stations
Description	It would be desirable to promote a policy of investment in the reorganisation of railway and metro stations so that they can be converted into genuine intermodal mobility centres, making them not only an interchange hub but also a centre for activities and services that can be used by users and citizens.

AUSTRIA

Wiener Lokalbahnen GmbH – Local Public Transport of the City of Vienna

Project	New Train-Service from Vienna (Liesing) to Lower Austria (Kaltenleutgeben)
Description	Construction of a new train service from Vienna (Liesing) to Lower Austria (Kaltenleutgeben), including vehicles, infrastructure and depot for vehicles.
Start	2021
End	2025
Budget (Mio. €)	95
Förder- und Finanzierungsschienen (Österreich, bestehend)	Vehicles, depot and operations: ÖPNRV-G (§§ 7, 11, 13); Infrastructure: "MIP" (§ 4 PrivatbG 2004)
RFF Component	Clean, smart and fair urban mobility

Project	Modernization and expansion of the maintenance depot of the “Badner Bahn”
Description	Modernization and expansion of maintenance capacities in Vienna (Inzersdorf) for the most frequented regional train service in Austria (Badner Bahn).
Start	2021
End	2025
Budget (Mio. €)	15
Förder- und Finanzierungsschienen (Österreich, bestehend)	ÖPNRV-G; FAG
RFF Component	Clean, smart and fair urban mobility

Linz AG

Project	L3 – Trolley Bus (Obus) Line L47, L48
Division	LINZ LINIEN GmbH
Description	Creation of two new high-performance trolley bus (Obus) lines L47+L48 in the east of Linz with a length of 12 km and 18 stops as good effective transport expansion measures in public transport in Linz. Establishment of the new trolley bus axis enables attractive linking of the bus network with the existing tram axis in the north and south of the city centre. This will also contribute to the relief of the already overstrained Hauptbahnhof transport hub with the planned local transport hub “Linz-Franckviertel”, which will lead to an increase in passengers by at least 6400 people per day and to an improved distribution of the passengers in the LINZ LINIEN GmbH network. The focus in the implementation of the new trolley bus axes in the east of Linz is on the creation of a high-performance public transport network in the dense interval (5 min. or 7.5 min. cycle) between Urfahr (Mühlkreis station, tram lines 3 and 4 and Karthof) and Neue Welt (tram lines 1 and 2). Based on the new track axis originally planned in this corridor, high-volume locations, and important passenger destinations on the Donaulände/Port - University Hospital - Grüne Mitte - Neue Welt can be included so that the companies located along this line and their employees can use a comparable offering with a tram. Approximately 30,000 people live in the immediate catchment area of the stops and about 30,000 people work in that area. The goal is to create a high-performance trolley bus axis that can be realised in a short period of time (commissioning about 2 years from financing decision / binding financing approval) for an attractive public transport connection to the western passenger destinations in the east of Linz (KUK - Kepler University Hospital, Trauma Hospital, Technical Universities, many schools and secondary technical schools, Tabakfabrik Linz (start-up centre), the technology mile with the companies Etech, Dynatrance, MIC, Keba, etc.) Design Center, Franckviertel area, Grüne Mitte Linz as well as AMS and BFI locations on Bulgariplatz). The project also involves the building of 17 modern, 24 m long double-jointed vehicles and the creation of a parking location and the relevant infrastructure. The emission-free and innovative 24 m long double-joint vehicles have a capacity of 183 persons - comparable to a tram.
Flagships	Recharge & Refuel
Term	2021 - 2024
Investment volume	€57.4 million for the trolley bus lines €3.5 million for the required road construction adaptations €60.9 million