Joint statement to D9+ Ministerial meeting, Luxembourg, October 27, 2021:

Business in D9+ share ambition to enable further digital and green innovation

D9+ ambitions matter to business and a green, digital transition

The Digital 9+ group of governments (D9+) has rightly noted that 'Europe is embarking on a digital decade that holds a strong promise of digitally enabled sustainability and innovation-driven progress'. As business federations in the D9+ Member States we welcome the valuable contributions that D9+ forum has made to date on topics such AI and the Digital Decade. We welcome the D9+ expressed ambition for Europe's digital decade[i] and stand ready to support that ambition further.

Enabling further digital and data innovation will support the green transition and enhance competitiveness, for example by being used to:

- **Optimise current logistics and process operations** by connecting sensors and controls in real time with digital and data innovation e.g., artificial intelligence (AI). Balance supply and demand while avoiding waste. Contribute to stability in power grids, by balancing potential demand and potential supply of renewable energy. Data innovation can improve organisational, process and product/service knowledge and insights in change. Data spaces could, in certain circumstances, allow for data sharing within and across sectors, optimise processes, efficiencies, resource flows and empower change. Digitalisation can make business models, products, and processes more circular.
- **Reduce the frequency of disruptions and the length of operational downtimes in energy and resource intensive activities**. Use data and digital tools in predictive maintenance.
- **Enable a planned transition**. Use data and digital tools to simulate ('digital twins') and optimise choices in a transition from current processes toward more sustainable ones.
- **Monitor, understand and plan to avoid or mitigate environmental impacts** using earth observation data[ii].
- **Optimise transport management**. Advanced data analytics can provide real time counts of train passengers. With real time pseudonymised data, a railway company can hold a connecting train or bus to grant the best connection to most passengers even in cases of delay. Likewise, a traffic and parking guidance system that sends generic recommendations to mobile devices or vehicles with SIM cards could guide drivers in real time to empty parking spaces. This could enable more efficient traffic management and reducing carbon emissions.

Further digital transformation may offer opportunities in areas including energy, transport, agriculture, construction, manufacturing, and supply chains.

The D9+ represent:

- The most digitally advanced Member States in the European Union (EU), who stand to gain enormously from further digitally enabled innovation.
- 35.9% of nominal EU GDP, for a combined value of €4.8tn in GDP[iii].
- Member States committed to leading a green and digital transformation[iv]. This commitment builds upon EU Council Conclusions of December 2020 on 'Digitalisation for the benefit of the environment'[v].

As key industry representatives in the D9+ countries, the following national business associations support the ambition of a green and digital transition. The shape of Europe's digital future matters. We envisage an open, more competitive, smarter low carbon economy, a safe and trustworthy digital environment, with a sustainable enterprise base that provides quality jobs and enables a high quality of life. We envisage an outward looking, dynamic, and successful EU, that provides the conditions for organisations and individuals to adapt to technological and environmental change and reach their full potential.

We welcome and encourage the ongoing joint efforts by our national government Ministers, as the D9+, to proactively promote and enable further digital and green innovation both at home and across the EU, strengthening our collective economic recovery, resilience, and welfare. We acknowledge the EU climate action commitments to 2030 and 2050; the European Commission proposal establishing the 2030 Policy Programme, "Path to the Digital Decade"[vi]; and several legislative proposals aimed at enabling the digital transition including proposed Data and AI governance regulation. We welcome the European Council Conclusions of 21-22 October which underline the EU's goal to enable digital transformation to drive economic growth, job creation and competitiveness.[vii]

In this context the following D9+ business federations would like to offer the following supports to the Ministerial discussions on October 27:

- An initial non-exhaustive selection of green and digital case studies at Annex to this statement.
- Initial recommendations to policy makers around current legislative files, including proposed AI and Data governance and regulation, that could better enable a shared green and digital transition. Both areas have been identified as supporting a green digital transition.

Recommendations to D9+

1. **Support coherence in green and digital transition policy, trajectories, and enablers.**
   - **Enable both agendas to work in tandem**. The green and digital transitions have mutual dependencies.
   - **Recognise that a regulatory environment which facilitates AI and data innovation has a role to play in ensuring a more sustainable economy**; one that is less emission-intensive and resource-intensive and which realises the full ambition of the European Green Deal and circular economy. Linking the twin transitions can be encouraged by facilitating an innovative green and digital ecosystem.
   - **Build trust in further green and digital innovation, and deepen collaboration with weaker performers, ensuring that a rising tide raises all boats**. As EU digital frontrunners we have a shared interest in ensuring Europe not only keeps pace with a global digital transition but leads the race in an overall more digital and sustainable global landscape.

2. **Support capacities that enable further green and digital opportunity.**
   - **Support uptake of digital technologies and coordinate further digitalisation across several dimensions**. Harness proposed Digital Innovation Hubs, support further innovation such as Advanced Manufacturing/Smart Industry, together with funding from Next Generation EU, Cohesion Policy Funds, and Horizon Europe. Use procurement as a tool to grow our innovation ecosystem. Invest in R&D capacities and support our innovation ecosystem.
   - **Intensify the roll out of digital infrastructure**, such as broadband, cloud, and 5G and 6G.

- **Ensure an inclusive twin transition which provides opportunities for all.** Support and invest in relevant skills development. Companies increasingly need individuals with a high level of technical skills. Work with the industry to identify and anticipate needs. Forge and implement skills partnerships and roadmaps. Upskill/reskill people and encourage alternative pathways for people into careers in green and digital innovation.

3. **Ensure Data governance and regulation can enable further green and digital innovation.**
   - **Remove remaining barriers to cross-border data-sharing**. The enabling of cross-border data-sharing is essential for the cross-border collaboration and research and innovation necessary to realise the technologies which will advance the green and digital transition. Ensure full implementation of the Free Flow of Data Regulation to remove any unjustified data localisation mandates and build on ongoing efforts to promote international standards on Data governance, recognising shared standards can enable trust, fair competition, and avoid market distortions.
   - **Untap the potential of Europe's Data economy by building trust**. Support investment. Develop a sustainable data-sharing environment which prioritises trust and maintains an in-built voluntary framework, avoiding mandatory business-to-government (B2G) requirements. Support B2B sharing, develop data spaces that facilitate easy data sharing and standard fairness B2B data sharing contracts while maintaining contractual freedom as a guiding principle.
   - **Recognise that the development of Data spaces in strategic sectors and domains of public interest, while respecting IP, Data privacy and security, will have positive benefits** for several areas including climate action and health. Increased Data access, quality and collaboration can address many of the EU's economic challenges and accelerate the twin transition.
   - **Enable researchers and innovators to lead Europe's path to a greener and more connected future**. Avoid stifling innovation or creating market fragmentation with mandatory technical specifications for data-portability.

4. **Ensure proposed AI governance and regulation enables, not slows down, further green, and digital innovation.**
   - **Support a proportionate, human-centred[viii] approach to the governance and regulation of AI development and adoption, based on evidence and risk**.
   - **Reassess potential administrative and compliance burdens, particularly for SMEs, or unwanted consequences in the proposed AI Act which could discourage investment in the development and deployment of AI systems** and consequently hurt Europe's twin transition and its competitiveness. Specifically:
     - **Reassess and clarify responsibilities of different actors in the AI value chain** to ensure obligations are allocated to the actors that can ensure compliance. **Ensure the proposed compliance framework is proportionate and flexible**.
     - **Clarify that the focus is on where most widespread and significant societal damage is likely to arise**, particularly in proposals around the definition of AI systems, the allocation of responsibilities between different actors in the AI value chain, criteria for determining prohibited practices and the classification of high-risk systems.

- **Use the definition proposed by the High-Level Expert Group on AI**, focusing on AI systems that display intelligent behaviour and take actions with some degree of autonomy. The current proposed definition of "AI systems" is too broad and would include most contemporary software and applications that use pure statistical and knowledge-based approaches for conventional Data analysis that have little impact on individuals.
- **Refine the proposed classification rules for high-risk AI to ensure consistency with sectoral legislation in Annex II**. The AIA should only regulate high-risk AI applications in areas where a clear regulatory gap has been demonstrated.
- **Support and embed the use of sandboxes schemes**, with well-established criteria to ensure an effective access to businesses, particularly SMEs. Support controlled experimentation to assess (yet unforeseeable) risks and locate potential legal barriers and inconsistencies.
- **Support and enable efficient co-operation between relevant regulators** at national and EU level to prevent divergent opinions, interpretations, and decisions as well as fragmentation in the internal market.

We support the ambition of a green and digital transition and hope these recommendations and case studies help you and your colleagues in your discussions on October 27. We are open to discussing this further and hope to collaborate with the D9+ on future initiatives that support further green and digital innovation.

Annex: Sample national case studies of digital enabled green transition

1. Using AI to predict breakdowns and improve industrial efficiency

In **Belgium**, *I-Care* is using AI to develop products and services of predictive maintenance. I-care helps in determining when a failure could occur by collecting, organizing, and analysing Data worldwide. This helps to predict breakdowns and therefore optimizes industrial efficiency.

More specifically, *I-Care* solutions, based on AI, make it possible to predict industrial breakdowns before anyone else, thanks to sensors placed on the equipment and the analysis of various parameters such as vibrations, heat releases, emissions of ultrasound, etc. A machine breakdown impacts productivity, costs, safety, and the environment. However, 90% of enterprises do not yet use predictive maintenance and still face such challenges every day while solutions exist.

2. Improving energy efficiency of data centres in the automotive sector

In **Czech Republic**, *ŠKODA AUTO* has expanded the data centre at its headquarters in Mladá Boleslav to the largest corporate computer and data centre in the Czech Republic, which enables the operation of extremely demanding High Performance Computing (HPC). To further improve energy efficiency, *ŠKODA AUTO* uses the heat generated by computer cooling to heat offices.

3. A homeowner-centric one-stop-shop model for energy renovation

BetterHome transforms a complex and fragmented renovation process into a simple homeowner-centric experience. Established in **Denmark** in 2014, *Betterhome* delivers a comprehensive digital one-stop-shop solution in partnership with key players in the construction value chain: leading banks, utilities and 3,500 installers. The building owner is offered tailor-made solutions based on their specific preferences, covering energy improvements to the building envelope, heating, cooling, ventilation, and hot-water systems. The solution offers a holistic planning process that optimises the value chain by minimising efficiency losses and avoiding miscommunication and customer lock-in effects.

Today, *Betterhome* has a network of more than 3500 installers, five banks and four utilities. The main target is deep renovation projects of single-family houses and multi-family buildings. These projects produce average energy savings of approximately 30-70 %. Accumulated indirect turnover in mid-2020 was €133 million, and demand is growing rapidly.

4. Using web-based visualised data to monitor and improve production in real time

In **Estonia**, soft furniture manufacturer *Neiser*, which has been implementing its so-called 'digital shift' since 2020, has taken the management of their production to a higher level. *Nesier* uses web-based visualised data to monitor the pace of production in real time, enabling it to make relevant operative management decisions.

While most companies try to achieve this through the software solutions of enterprise resource planning (ERP), in *Neiser* a new production management platform was created with the assistance of the IT company *Columbus Estonia* focused on the provision of digital solutions, which is based on ERP, but is at the same time connected with the business analysis programme *Microsoft Power BI.* The latter enables interactive analysis and visualisation of data received from ERP, creation of dynamic overviews related to production and distribution of such overviews to various user groups as necessary.

5. Using AI to improve energy efficiency and customer service[ix]

In **Ireland**, *ESB Networks* are using AI to optimise the rollout of their smart meter technology. Utilising Computer Vision and Machine Learning, *ESB Networks* ensures that its new smart meters are safely and correctly installed. *ESB Networks* can now easily identify meter readings from photographs – a critical requirement for *ESB Networks* to ensure it can respond to any customer queries quickly. This project won the Intelligent Automation – Best Use of Robotic Process Automation & Cognitive award at the AI Ireland 2019 AI Awards.

An innovative proof of concept study carried out by ESB's *Smart Energy Services*, together with IBM Research-Ireland, assisted Tesco Ireland to reduce its total annual energy bills by 25%. Savings on refrigeration alone totalled 10Gwh. The study focused on the high energy consumption of refrigeration units in the retail sector, using AI-based analytics and the Internet of Things to identify and validate the savings potential.

6. Using machine learning (ML) algorithms to improve the production of floor paint

In the process of creating a floor paint, the same product (colour) must be produced several times per month. The challenge is to obtain the same shade each time since even minor differences in colour cause difficulties in the final product.

To address this challenge and improve quality, in **Luxembourg** *Tarkett* relies on the standardization of colour references. Inks are managed at the beginning of the process to create a specific colour using the standard of the International Commission on Illumination. Then a computer automatically defines the colour based on a sample from the previous production. It calculates the right amount of composing colours to reach the perfect shade.

The second step consists of managing the colour in production by producing a sample and using it on vinyl sheets. Then the colour composition is analysed against a finished vinyl, which allows measuring, helped by machine learning, of the distances between colours in the three-dimensional colour space. The colour composition is then adjusted, resulting in a new paint precisely the same to the human eye.

7. Providing the residual heat of datacenters to business parks and households[1]

In **the Netherlands**, local exchange of residual heat produced by datacenters results in more efficient use of power and increased sustainability. Recently three new projects were announced, delivering heat to respectively a business park, a residential area with 10,000+ households, and the landmark Van Nelle factory. Depending on the location, the exchange of heat can be implemented by a local exchange/connect. Additionally, at other locations, investments in local heat transport networks are required to derive the full potential.

8. Integrating systems of intelligent production management for the ceramics industry

In **Portugal**, *Primus Victoria*, operating in the ceramics sector, developed and customized an integrated system of intelligent production management for the ceramics industry, in partnership with the University of Aveiro and the RCSoft company. This project aims at integrating all the functional areas of the company into a single management software, which allows them to follow best practices.

Primus Victoria uses a predictive manufacturing system, programmed with AI which allows it to estimate its own condition, detect the presence of failures or anomalies, infer future failure events, and run diagnostics, allowing greater efficiency of the productive processes of this industry and the creation of

[1] Source: Dutch Data Center Association, October 2021

value by the greater availability of the productive means. The increased digitalisation of the process has simultaneously allowed gains in sustainability in production and optimisation of resources.

9. Using 5G for connected mining

Mining is a strongly growing industry. Its importance to the overall economy increases with the demand for raw materials. In **Sweden**, *Ericsson* has collaborated with *Boliden*, *ABB, SICS Swedish ICT*, *and Volvo Construction Equipment* to evaluate new mobile communication infrastructures in an industrial context.

Connecting mines and mining equipment with 5G allows for automation and remote control of equipment and transport vehicles. The direct effects are lower costs, higher productivity, safer jobs, and lower carbon footprint.

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[i] D9+ Declaration, 'Leading the way to Europe's Digital Decade' (January 27, 2021)
[ii] For example: https://terrainai.com/
[iii] Source: Eurostat (2021)
[iv] Declaration on A Green and Digital Transformation of the EU, (March 19, 2021)
[v] Council Conclusions *Digitalisation for the benefit of the environment* (December 17, 2020)
[vi] Commission proposal to establish the 2030 Policy Programme "Path to the Digital Decade" (September 15, 2021)
[vii] Council Conclusions *on Digital* (October 21-22, 2021)
[viii] Principled approach outlined by the European Commission's High-Level Expert Group on AI ('AI HLEG') and OECD that encourages beneficial outcomes from AI for both humans and the planet that sustains them. This approach encourages a respect for law, human rights, as well as a consideration for the natural environment and sustainability.
[ix] DETE (2021) AI – Here for Good, and https://www.esb.ie/. Other related initiatives include the 'Free Electrons' programme.