

European Commission stand: #EU #Horizon2020/HorizonEurope project presentations

DAY 1 | Monday 14/11/2022 | Theme 1: Smart Solutions and Society

12:00 – 12:15 DIGNITY: Inclusive digital transport solutions

@dignity_eu

DIGNITY proposes a new approach for urban transport, based on a digital inclusive system, addressing the needs of all users and eliminating disparities. It will provide a methodology to tackle digital failures in metropolitan and regional contexts looking at the entire digital transport ecosystem, including the institutional structure, the forecast and supply of digital mobility, and the needs of end users.

More: <https://cordis.europa.eu/project/id/875542>

12:15 – 12:30 nuMIDAS: Making the most of data for better future mobility

@H2020nuMIDAS

Changing mobility ecosystems require maximising data to shed light on the effectiveness and impact of certain mobility technologies and mobility needs. The **nuMIDAS** project will provide an insight into methodological tools, databases and models that can help a successful integration of all disruptive mobility solutions with the designs of policymakers. The project will examine a selection of case studies in pilot cities, with varying characteristics. The goal is to provide a fit-for-purpose, easily accessible toolkit for various applications.

More: <https://cordis.europa.eu/project/id/101007153>

12:30 – 12:45 AWARD: Autonomous transportation system for better logistics

@award_h2020

Connected and automated vehicles have a significant impact on the logistics industry. However, autonomous heavy-duty vehicles still face challenges when it comes to operating safely and functionally around the clock. The **AWARD** project will develop and deploy a safe autonomous transportation system applicable to a wide range of real-life scenarios and capable of confronting adverse environmental conditions. The solution will rely on multiple sensor modalities offering 24/7 availability and a new fleet management system for optimised logistics.

More: <https://cordis.europa.eu/project/id/101006817>

12:45 – 13:00 Hi-Drive: Improving intelligent vehicle technologies

@_HiDrive_

Hi-Drive will push automated driving further towards high automation. The goal is to make automation more robust and reliable by testing intelligent vehicle technologies in scenarios that have not been extensively demonstrated before. The project's ambition is to extend the operational design domain, which currently demands frequent interventions from the human driver. Hi-Drive associates a consortium of 41 European partners covering the main impact areas that affect users and the transport system, and enhance societal benefits. The project work includes outreach activities on business innovation and standardisation.

More: <https://cordis.europa.eu/project/id/101006664>

13:00 – 13:15 AITHENA: AI-based CCAM: Trustworthy, Explainable, and Accountable

@ApplusIDIADA

Connected and Cooperative Automotive Mobility (CCAM) solutions have emerged thanks to novel Artificial Intelligence (AI) which can be trained with huge amounts of data to produce better-than-human driving performance under certain conditions. AI remains however largely unexplored in terms of 'explainability' (interpretability of model functioning), privacy (exposure of sensitive data), ethics (bias and wanted/unwanted behaviour), and accountability (responsibilities of AI outputs). **AITHENA** will contribute to building Explainable AI (XAI) in CCAM development and testing frameworks. Data and tools developed will be made available via European data sharing initiatives (OpenData and OpenTools). *More:* <https://cordis.europa.eu/project/id/101076754>

13:15 – 13:30 DataPorts: New smart platform for European ports

@DataportsE

Hundreds of different European seaports collaborate with each other, exchanging different digital data from several data sources. However, to achieve efficient collaboration and benefit from AI-based technology, a new integrated environment is needed. The **DataPorts** project will design an Industrial Data Platform. The Cognitive Ports Data Platform will connect existing digital infrastructures of seaports and their systems, will set rules on safe and reliable data sharing and trading, and offer powerful services of data analytics. Before a full roll-out, the platform will be implemented in two European seaports.

More: <https://cordis.europa.eu/project/id/871493>

16:30 – 16:45 ePIcenter: Setting sail for future logistics chains

@ePIcenter_EU

The seamless transport of goods is a top priority of the trade and logistics sector. Focusing on the technological and operational opportunities that the physical internet, synchromodal operations and other disruptive technologies provide, the **ePIcenter** project will develop new solutions aimed at increasing the efficiency and sustainability of global supply chains. This will enable all players in global trade and international authorities to cooperate with ports, logistics companies and shippers and to respond to volatile political and market changes. Headed by a consortium of 35 partners representing leading ports, forwarders, cargo owners, logistics providers, and technology firms, the aim is to create a sustainable logistics chain of the future.

More: <https://cordis.europa.eu/project/id/861584>

16:45 – 17:00 SENATOR: Smart operator platform for sustainable urban freight logistics

@SenatorProject

The **SENATOR** project aims to develop governance schemes based on user demand, transport, freight and logistics planning, and city infrastructure. The project will create a multi-collaborative framework bringing together stakeholders in urban freight logistics. A 'control tower' will help plan the operations and facilitate relationships between urban planners and urban freight logistics players. The goal is to create a new urban logistics model focused on the four urban layers (end-receiver, transport, logistics and infrastructure) and enhance citizen engagement in urban planning policies.

More: <https://cordis.europa.eu/project/id/861540>

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DAY 2 | Tuesday 15/11/2022 | Theme 2: Green Mobility and Decarbonisation

10:00 – 10:15 ReVeAL: Improving urban vehicle access

@CIVITAS_ReVeAL

Restricting car access in urban areas is a hot topic for Europe's decision makers. The **ReVeAL** project aims to add urban vehicle access regulations (UVAR) to the standard range of urban mobility transition approaches of cities across Europe. The ReVeAL consortium will combine conceptual work and case study research with hands-on UVAR implementation in six pilot cities. It will also encourage stakeholder interaction and organise professional communication activities. Through this process, ReVeAL will be able to systematically extract lessons learned and support the wider roll-out of smart UVAR approaches across Europe.

More: <https://cordis.europa.eu/project/id/815008>

10:15 – 10:30 AVANGARD: 3D printing solution in support of urban mobility

@AvangardEU

Urban mobility is closely linked to the rapid transition from traditional to technologically advanced models. Manufacturing related to urban mobility is fundamentally affected. The **AVANGARD** project intends to develop and demonstrate innovative solutions in manufacturing. The project will test the integration of three innovative units into a microfactory test bed for urban electric vehicles. AVANGARD will perform a hybrid public-private Blockchain platform based on 3D printing technology where increased speed and security are offered.

More: <https://cordis.europa.eu/project/id/869986>

11:45 – 12:00 ModulED: Next Generation Modular Electric Drivetrains

Electrification of passenger cars and light-duty vehicles is crucial for reducing the greenhouses gas emissions from transport. However, the maturity of electrical drives and engines needs a final push to achieve better performance and reduce costs to encourage a widespread shift from conventional cars. **ModulED** is developing a new generation of modular electric engine based on buried-permanent magnet motor with reduced rare earth use, and electric drivetrain for various configurations of Full and Hybrid Electric. The project brings together nine partners – research centres, three Tier-1 suppliers and SMEs – with automotive, power electronics, powertrain expertise.

More: <https://cordis.europa.eu/project/id/769953>

12:00 – 12:15 SCALE: Smart Charging Alignment for European Commission

@scaleproject_

SCALE tests smart charging solutions for electric vehicles (EV). The project stems from a rising opportunity. The uptake of EV in a mass-deployment scenario, coupled with the flexibility of renewable energy generation, could form the basis of a decentralised power system simultaneously decarbonising both transport and energy sectors. SCALE's aim is to create an open system solution, deploying a user-centric approach. This will reduce the need for power grid reinforcement investments through smart charging and V2X solutions.

More: <https://cordis.europa.eu/project/id/101056874>

12:15 – 12:30 ENABLEH2: ENABLing cryogEnic Hydrogen based CO2 free air transport

@Enableh_2

Flightpath 2050 ambitiously targets 75% CO₂ and 90% NO_x emissions reductions, relative to year 2000. However, it is unlikely that these targets will be met with carbon containing fuels. Liquid hydrogen (LH₂) has long been seen as a technically feasible fuel for a sustainable aviation future. Its use is still though subject to widespread scepticism. **ENABLEH2** will mature critical technologies for LH₂ based propulsion to achieve zero emission-level CO₂ and ultra-low NO_x emissions. It will tackle key challenges i.e. safety, infrastructure, economic sustainability, community acceptance, and explore key opportunities through improved combustor design and fuel system heat management

More: <https://cordis.europa.eu/project/id/769241>

12:30 – 12:45 SHOW: Automated vehicles for sustainable urban transport

[@show_h2020](#)

SHOW is realised by a consortium of 69 partners and applied in 20 European cities. It aims to evaluate the role of autonomous vehicles (AVs) in making urban transport more effective, sustainable and user friendly. The project will deploy a fleet of 74 AVs of all types including buses, taxis, MaaS connected automated cars and cargo vehicles for all transport users in both mixed traffic and dedicated lines operating under traffic speeds ranging from 18 to over 50km/h. The concept covers all urban automated mobility needs and all stakeholders' demands.

More: <https://cordis.europa.eu/project/id/875530>

12:45 – 13:00 Green Vehicle Index-GVI: Assessing just how green vehicles are

[@Green NCAP](#)

Can consumers, authorities and all relevant stakeholders be empowered to distinguish how energy-efficient a vehicle really is? The aim of the **Green Vehicle Index** project is to turn complicated test processes into objective information that consumers can easily understand, to orient the consumer towards the most energy efficient low polluting vehicle, and simultaneously spark competition among manufacturers. The project devised a methodology to evaluate a vehicle's environmental performance over the course of its serviceable life. It has been the catalyst for a fully-fledged Green NCAP program, which will help consumers, authorities, and all other stakeholders to identify if a vehicle truly is clean and energy efficient. It established an independent rating system to assess new vehicles' performance for factors such as noise and cost, testing and rating 49 vehicles currently on the market.

More: <https://cordis.europa.eu/project/id/814794>

13:00 – 13:15 DREEM: Introducing a safe and smart micro-mobility urban transport

[@DREEMscooter](#)

Intermodal passenger transport is a highly efficient mobility solution for greater sustainability in contemporary urban environments. Light, low-occupancy vehicles with smart features seem to be the key element in intermodality in the city. The **DREEM** project aims at finalising and testing a safer and modular electric kick scooter for personal urban and suburban mobility. The project will focus on the enhancement of the vehicle's innovative profile in terms of modularity, foldability and improved safety and on the development of new business models and circular economy applications.

More: <https://cordis.europa.eu/project/id/101007085>

16:30 – 16:45 HEMOS: Redesigning heat energy management in ships

[LinkedIn](#)

Economic considerations and environmental restrictions drive the demand for better energy management onboard. Depending on the ship type, about 40–50% of the heat energy is currently disposed to the environment. Most of the lost heat energy is low (< 100 °C), which is more challenging to convert into valuable energy such as electricity. In port areas, ships are one of the largest air polluters (CO₂, SO_x, NO_x, particles). **HEMOS** aims to develop and verify a holistic and dynamic on-demand heat energy system concept to utilise the otherwise lost waste heat energy.

More: <https://cordis.europa.eu/project/id/101056909>

16:45 – 17:00 CURRENT DIRECT: Better batteries for green waterborne transport

[@EnergyVille](#)

A shift towards clean energy is a difficult but necessary task for the transport sector, which is responsible for a quarter of Europe's GHG emissions. This creates a challenge for waterborne transport, where, according to prognosis, emissions will increase rapidly, hindering the goals of the Paris Agreement. The use of batteries can reverse this, but current technology makes them much too expensive. **Current Direct** proposes to develop and demonstrate an innovative lithium-ion cell engineered for waterborne transport. It is based on novel manufacturing techniques that will enable significant cost reduction and fast adoption of methods supporting reduced greenhouse gas emissions.

More: <https://cordis.europa.eu/project/id/963603>

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DAY 3 | Wednesday 16/11/2022 | Theme 3: Innovative Infrastructure for Europe 2030

10:00 – 10:15 ORCHESTRA: A new and resilient multimodal traffic management ecosystem

@orchestra2020

Technological and organisational innovations pave the way to an integrated transport system that coordinates and synchronises traffic flows along and across all modes – road, rail, water, and air. The **ORCHESTRA** project will bridge the current silos within traffic management by defining a multimodal traffic management ecosystem (MTME) where different traffic management measures are coordinated and synchronised. This will ensure efficiency and resilience of the transport system and leverage integration of connected and automated vehicles and vessels. To facilitate large-scale deployment of a novel MTME, ORCHESTRA will provide a polycentric multimodal architecture defining roles, responsibilities, information models and governance structures required.

More: <https://cordis.europa.eu/project/id/953618>

10:15 – 10:30 OMICRON: Intelligent road asset management platform

@H2020Omicron

Technological advances offer great opportunities for safer roads and improved road management. **OMICRON** will develop an intelligent asset management platform (IAMP) with a vast portfolio of area-specific innovative technologies to increase the construction, maintenance, renewal, and upgrade of the EU road network. The project will address the entire road network system, focusing on digital inspection technologies implementation, road digital twin development, construction of a decision support tool, intelligent construction development, and intervention solution for infrastructures. The IAMP will be interconnected by a building information modelling oriented digital twin to the decision support tool to enable industrialisation and automation of several road management functions, demonstrated in Italy and Spain.

More: <https://cordis.europa.eu/project/id/955269>

11:45 – 12:00 USER-CHI: Innovative solutions for USERcentric Charging Infrastructure

@Userchi_H2020

Europe's electric vehicle (EV) sector has significantly evolved over the past years. Accelerating electromobility is a priority and requires a series of innovative measures. **USER-CHI** aims to unlock Europe's e-mobility potential via enhancing electric infrastructure and putting users at the centre. USER-CHI is an industry powered, city driven and user-centric project that will co-create and demonstrate smart solutions around seven connecting nodes of the Mediterranean and Scandinavian-Mediterranean Trans European Network-Transport (TEN-T) corridors between February 2020 – January 2024 to promote a large-scale-mobility market take-up in Europe through smart solutions, novel business models and new regulatory framework conditions..

More: <https://cordis.europa.eu/project/id/875187>

12:00 – 12:15 EU Green Deal Airports - STARGATE: Innovative solutions for sustainable airports

@Stargate_EU_gd

The mission of **Stargate** is to develop, test and deploy a set of innovative solutions making aviation and airports significantly greener and more sustainable. The industry's clear response to climate emergency aims at a further decarbonisation as well as the cooperation with local surroundings to improve the living quality and the stimulation of the modal shift. The plan includes over 30 specific projects, among which the promotion of Sustainable Aviation Fuels, electric ground handling materials and techniques to reduce aircraft engine run-up noise. The consortium of 22 European partners including airports, airlines, mobility & knowledge institutes and local authorities.

More: <https://cordis.europa.eu/project/id/101037053>

12:15 – 12:30 EU Green Deal Airports - OLGA: Holistic and Green Airports

[@OLGA_ProjectEU](#)

Today's aviation community – from the airport and airlines to ground handling services – is facing the challenge of environmental transition. Guided by the ambitions of the European Green Deal in ensuring that transport makes an important contribution to climate neutrality by 2050, the **OLGA** project is part of the bigger plan for aviation decarbonisation. The consortium, consisting of airports, airlines, ground handlers, industry, research bodies and SMEs, will integrate sustainable aviation fuels supply chains in conventional jet fuel infrastructure and demonstrate complementary types of low-emission mobility, electric ground support equipment, hydrogen infrastructure and reduced carbon airside operations. OLGA expects to achieve significant quantified advances in the first 3 years.

More: <https://cordis.europa.eu/project/id/101036871>

12:30 – 12:45 EU Green Deal Airports - TULIPS: Innovative and sustainable airports

[@tulips_eu](#)

One commitment of the European Green Deal is for transport to become drastically less polluting. Moving towards climate-neutral aviation, the **TULIPS** project will accelerate the implementation of innovative and sustainable technologies targeting reduced greenhouse gas emissions at airports. The project will roll out 17 demonstrations of green airport technological, non-technological and social innovations at Amsterdam Airport Schiphol and at the Oslo, Turin and Larnaca airports. TULIPS will measure and quantify the benefits of these technologies and concepts and forecast their impact on EU climate goals. The project will consider economic, geographical and political scenarios to deliver a robust roadmap presenting the way of implementation from international hubs to the regional level.

More: <https://cordis.europa.eu/project/id/101036996>

12:45 – 13:00 Green Deal Ports - MAGPIE: Smart Green Ports

[@MagpiePorts](#)

MAGPIE's ambition is to force a breakthrough in the supply and use of green energy carriers in transport to, from and within ports. The project will create energy efficiencies and support developments that make green-energy carriers available to users. By demonstrating and implementing smart solutions in the realm of digitalisation and automation, the project will facilitate and contribute to the decarbonisation of port-related transport. The ports of Rotterdam (Netherlands) and Sines (Portugal), as well as Haropa Port (France) and the DeltaPort association (Germany) are supporting the project. MAGPIE will demonstrate energy supply solutions to stimulate green and integrated multimodal transport, and guarantee implementation through the European Green Ports of the Future Master Plan.

More: <https://cordis.europa.eu/project/id/101036594>

13:00 – 13:15 Green Deal Ports - PIONEERS: Reducing greenhouse gas emissions in Ports

[@PIONEERS_EU](#)

Pioneers brings together four ports with different characteristics but shared commitments towards Green Deal goals and Blue Growth socio-economic aims. In order to address the challenge for European ports of reducing GHG emissions while remaining competitive, the Ports of Antwerp-Bruges, Barcelona, Venlo and Constanta will implement green port innovation demonstrations across four main pillars: clean energy production and supply, sustainable port design, modal shift and flows optimization, and digital transformation. PIONEERS is coordinated by the Port of Antwerp-Bruges and a consortium of 46 partners.

More: <https://cordis.europa.eu/project/id/101037564>

16:30 – 16:45 PASCAL: Enhance driver behaviour and public acceptance of CAVs

@ProjectPascal

Driverless cars are destined to open new avenues in the realm of mobility. But attitudes towards connected and autonomous vehicles (CAVs) remain lukewarm. Safety is one of the main concerns. With this in mind, the **PAsCAL** project is addressing issues related to the interaction of ‘users’ in or near CAVs. It is studying the impact of connected transport on people’s well-being, quality of life and equity. As an international project, it will develop a multidimensional map of public acceptance of higher levels of CAVs, investigating the ‘new driver’ needs considering different modes and mobility services. In this context, the project will develop guidelines and recommendations to accelerate the evolution of CAV transport systems.

More: <https://cordis.europa.eu/project/id/815098>

16:45 – 17:00 LASH FIRE: Protecting roll-on/roll-off ships from fires

@lash_fire

There is a reported increase in the frequency of fires on board ro-ro (roll-on/roll-off) ships, which carry wheeled cargo like lorries and cars. To address the urgent need to improve fire protection, the **LASH FIRE** project addresses 20 critical aspects identified by the European Maritime Safety Agency (EMSA) and the International Maritime Organization (IMO). The aim is to develop and demonstrate operational and design solutions to enhance fire prevention and ensure better fire management on all types of ro-ro ships. Solutions will be assessed as regards risk reduction and cost, as basis for proposals to revise IMO regulations. To ensure relevance and stimulate adoption, two advisory groups will be formed to represent operators and Flag States.

More: <https://cordis.europa.eu/project/id/814975>

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DAY 4 | Thursday 17/11/2022 | Theme 4: Policies and Economics for a Competitive Europe

11:45 – 12:00 HARMONY: Transport planning tools for a new mobility era

[@Harmony_H2020](#)

Harmony's vision is to enable metropolitan area authorities to lead a sustainable transition to a low-carbon new mobility era. The spatial and multimodal transport planning tools devised by the project will update the Sustainable Urban Mobility Plans of the future. Harmony envisages the development of a new generation of harmonised spatial and multimodal transport planning tools. These tools will comprehensively model the dynamics of the changing transport sector and spatial organisation, enabling metropolitan area authorities to lead the transition to a low carbon new mobility era. Harmony stands for a “Holistic Approach for Providing Spatial & Transport Planning Tools and Evidence to Metropolitan and Regional Authorities to Lead a Sustainable Transition to a New Mobility Era”. Its consortium gathers 21 members from nine different European countries.

More: <https://cordis.europa.eu/project/id/815269>

12:00 – 12:15 SCALE-UP: User-Centric and Data Driven Solutions for Urban Poles

[@ScaleUpProject](#)

SCALE-UP is an EU-funded Innovation Action, focusing on three European urban nodes (Madrid, Antwerp, Turku). The project is exploring options to make them better connected and climate resilient while further developing complex multi-modal transport systems. The main outcome of the project are 28 newly developed innovative mobility measures to ensure the vertical (governmental) and horizontal (dimensional) upscaling of urban mobility. The project kicked off in June 2021 for four.

More: <https://cordis.europa.eu/project/id/955332>

12:15 – 12:30 nPETS: Generating knowledge on transport-generated nanoparticle emissions

[LinkedIn](#)

To improve air quality, emission standards for road vehicles were introduced in the 1970s. Over the years, measures have been tightened and extended to cover all modes. However, air pollution in European cities is still threatening human health. Adverse health effects of airborne particles are strongly linked to their size. A major fraction of outdoor ultrafine particles is traffic generated from road, rail, air, and sea transportation. The **nPETS** consortium aims to improve the knowledge of transport generated exhaust and nonexhaust nanoparticle emissions and their impacts on health and new public policies. It aims to monitor and sample with state-of-the-art particle instruments the sub 100 nm transport generated emissions from shipping, road, rail, and aviation both in field and controlled laboratory environments.

More: <https://cordis.europa.eu/project/id/954377>

12:30 – 12:45 WE-TTRANSFORM: Workforce Europe-Transformation Agenda for Transport Automation

[@TransformWe](#)

WE-TTRANSFORM is an EU-funded project addressing the impacts of transport automation on the workforce. As new technologies and digital infrastructures transform the mobility sector, local authorities, operators and manufacturers require updated and fresh labour skills. From road transport to aviation and shipping, automation is rapidly changing the face of mobility. It is essential that policy making keeps pace of these shifts, encouraging and facilitating the adaptations required. The project brings stakeholders together to establish a comprehensive knowledge base from which to inform policymaking.

More: <https://cordis.europa.eu/project/id/101006900>