

#INDAYS2018

INNOVATION AND NETWORKING DAYS — TORINO 2018



/21.11
/22.11

The Innovation and Networking Days allow Innovators from industry, research and public administrations to meet, share, network and discuss different facets of a broad topic that, in this edition, will be

**HOW INFORMATION AND
COMMUNICATION TECHNOLOGIES
CAN SUPPORT ENVIRONMENTAL
SUSTAINABILITY OF PRODUCTION,
PRODUCTS AND SERVICES.**

ENVIRONMENTAL SUSTAINABILITY OF PRODUCTION

12.40	Registration		
13.00	Welcome and institutional greetings	LINKS Foundation Compagnia di San Paolo Politecnico di Torino Fraunhofer FIT	Prof. Marco Mezzalama Prof. Francesco Profumo Prof. Guido Saracco Dr. Markus Eisenhauer
13.20		Introduction to Day 1 sessions	Dr. Maurizio Spirito /ISMB
13.30	Keynote speech	Systemic Approach set up a new cultural paradigm	Prof. Arch. Luigi Bistagnino /Politecnico di Torino
14.00	Plenary session	Digital manufacturing in the circular economy Marketplace to enable industrial symbiosis Real time monitoring for process resources optimization (focus on Aluminium) Open source and multivendor digital platform for Industry 4.0 (focus on Plastic)	Dr. Konstantinos Georgoulas /University of Patras Dr. Usman Wajid /Information Catalyst Mr. André Augé /Rio Tinto Mr. Francesco Dipasquale /Polimatica s.r.l.
15.00	Networking coffee break		
15.30	World Café's sessions 4 rounds 5 parallel topics/ 5 tables Timing: 1 round lasts 25 mins + 5 mins break between each round	Smart Mobility and Logistic Citizens Engagement and Smart City services Circular Economy/Sustainability Resilience to foster People Wellbeing Digitalization of Manufacturing and Production System	
17.30	Plenary session	How ecosystems and digital platforms foster sustainable and competitive innovation	Mr. Aldo Pozzoli /Accenture Strategy
18.00	Networking Cocktail and Poster Session	Preparing road infrastructure for mixed vehicle traffic flows (automated, connected and conventional driving): the INFRAMIX project approach EnABLES Transnational Access Programme: Free of charge access to equipment, tools and expertise to do 'powering IoT' feasibility studies in research centres across Europe COMPOSITION Ecosystem for optimizing production and external collaboration in manufacturing EXCELL - Actions for Excellence in Smart Cyber-Physical Systems applications through exploitation of Big Data in the context of Production Control and Logistics	Mr. Vicent Pastor /ENIDE Mr. Mike Hayes /Tyndall National Institute Dr. Markus Eisenhauer /Fraunhofer FIT Dr. Anja Linnemann /Fraunhofer FIT

ENVIRONMENTAL SUSTAINABILITY OF PRODUCTION

12.40 Registration

13.30

Keynote speech

SYSTEMIC APPROACH SET UP A NEW CULTURAL PARADIGM

Relations today are used especially to affirm our existence. In this way, we try to acquire more strength to stand out easily and heavily over others. However, relations are mutual links that bind us to a group and to a context. The different subjects each perform a small action that in the whole becomes exponentially a great result. The flow of matter between the actors positively combines individual production systems with the attention that the outputs of one are the inputs of another in a continuous flow.

Prof. Arch. Luigi Bistagnino

Systemic Design Research and
Education Center (SYDERE)
Politecnico di Torino
ECAM - University of Lyon

Architect and designer, Luigi Bistagnino lives and works in Torino. He attends to eco-compatibility of industrial products (Design by Components) and of agriculture and industrial processes (Systemic Design). He has been Founder of the research group on Systemic Design that set up (2002) the Master Degree "A. Peccei" in Systemic Design, Politecnico di Torino and coordinator of Industrial Design School (1996-2015). Former was Full Professor of Design, at Politecnico di Torino, now professor at ECAM University of Lyon. He is also scientific board coordinator of SYDERE center (Systemic Design Research and Education), Politecnico di Torino, ECAM University of Lyon and President and founder of the Systemic Approach Foundation.

14.00

Plenary session

DIGITAL MANUFACTURING IN THE CIRCULAR ECONOMY

Circular economy represents the change from a linear way of producing/consuming/wasting to a global circular optimization of the flows of material, products and services, bringing several financial, societal and environmental benefits. Modern digital manufacturing solutions can support and accelerate circular economy. In this speech, we will examine the current challenges, discuss technological solutions and propose next steps for Circular Economy in Manufacturing.

Dr. Konstantinos Georgoulas

Laboratory for Manufacturing
Systems & Automation (LMS) -
University of Patras

Dr. Konstantinos Georgoulas has a PhD in Mechanical Engineering and Aeronautics, and he is currently working as Project Manager at the Laboratory for Manufacturing Systems and Automation (LMS) of the University of Patras. He has been involved in more than twenty European R&D projects, contributing to technological advancement and development of innovative solutions for the manufacturing sector. His research interests are focused on the fields of flexibility and change management, circular economy, personalized products and networked manufacturing, as well as education and training, and he is frequently invited as expert in international scientific and engineering conferences.

MARKETPLACE TO ENABLE INDUSTRIAL SYMBIOSIS

Marketplace have been around for ages, however not until recently, it was realized that marketplaces can support the creation of an ecosystem and generate economic value for all stakeholders in the digital platforms. In a digital platform, marketplace creates the network effect by providing the economic mechanisms and technology frameworks that support the interactions and business transactions between different entities. Recent adaptations of marketplace concept has seen the role of marketplace extended from product-service sharing to mechanisms for service discovery, match-making, recommendations and smart contracting.

Dr. Usman Wajid

Information Catalyst

Wajid Usman is a Senior Researcher at Information Catalyst (ICE) UK, an innovative SME providing ICT consultancy and technology solutions across digital manufacturing, IoT, big data, eHealth and cybersecurity domains. He is mainly responsible for initiating, nurturing and leading research & innovation projects in different industrial sectors. The collaborative nature of previous and ongoing projects has allowed Usman to work with some of the top brass in European industry on a portfolio of innovative solutions and digital platforms. With proven experience of managing digital transformation projects and solution development life-cycle in multiple domains, he actively collaborates with research, industry and regulatory bodies to develop innovation roadmaps and align individual agendas with research and innovation frameworks.

REAL TIME MONITORING FOR PROCESS RESOURCES OPTIMIZATION (FOCUS ON ALUMINIUM)

Rio Tinto, a large Anglo-Australian mining company deals also with aluminium production, a cost and energy intensive process. In the frame of Monsoon project (SPIRE), real time monitoring actions has been implemented in several smelter departments to achieve process and resource optimization and costs reduction.

Mr. André Augé

Aluminium Technology Solutions -
LRF Rio Tinto

André Augé holds an M.Sc degree in Chemistry engineering from Chimie Paris Tech and is also graduated in Statistics and Data Science. He has been working in aluminium industry for 32 years in R&D and industrial sites as process and production manager. He is now in charge of statistical studies and follow-up of the Rio Tinto smelters. Andre Augé leads the AP part of Monsoon project.

OPEN SOURCE AND MULTIVENDOR DIGITAL PLATFORM FOR INDUSTRY 4.0 (FOCUS ON PLASTIC)

Open Plast is an opensource Factory 4.0 platform for the plastic and rubber sector. The demand for control and efficiency in the management of a plant is growing. At the same time, the efficient use of every type of resources (like machines, workforce, materials and energy) is becoming increasingly important. Whether you want to control injection presses, feeding systems, cooling systems, energy management, robots, warehouse systems, etc. All these functions work via a uniform and upgradable system, under a common interface. Open Plast takes the factory to the next level.

Mr. Francesco Dipasquale

Polimatica s.r.l.

Francesco Dipasquale is the CEO of Polimatica srl, an Italian Software Company based in Turin that is specialized in software solutions for Manufacturing and automotive industry. He is born in Ragusa (Italy) and earned Electronic Engineer degree (1979), Dipasquale start working for Consultancy Software Companies on production systems, in 1983 he start to work in DEA Spa As Engineer on Automation and Robotic systems. He joined Polimatica in 1985 as Shareholder and in 1993 became CEO and main shareholder of Polimatica.

15.00 Coffee break

15.30

World Café's sessions

Smart Mobility and Logistic
Citizens Engagement and Smart City services
Circular Economy/Sustainability
Resilience to foster People Wellbeing
Digitalization of Manufacturing and Production System

17.30

Plenary session

HOW ECOSYSTEMS AND DIGITAL PLATFORMS FOSTER SUSTAINABLE AND COMPETITIVE INNOVATION

Complex are the challenges aimed at reducing the ecological footprint and mitigating the climate change effects for a sustainable and competitive future. To achieve viable innovative solutions we need to boost collaboration and collective intelligence. Identifying, structuring and orchestrating – also through digital platforms – multifaceted living ecosystems composed by several parties bringing diverse skills, resources and competences for the common goal. Like making a city smart or a supply chain circular.

Mr. Aldo Pozzoli

Sustainability Global Group -
Accenture Strategy

Aldo Pozzoli, Management Consultant, works for Accenture Strategy since 2011 and is specialized in designing and developing strategies and coordinating implementation initiatives in the fields of Innovation and Sustainability, having served both public and private large clients at international level. He also covers the theme of Open Innovation having been among the others judge and coach in many initiatives and advisor of the winning startups of the H&M Foundation Global Change Award on Circular Economy since its first edition. Holds an MBA from SDA Bocconi and an Executive Certificate in Strategy & Innovation from the MIT Sloan School of Management.

18.00

Networking Cocktail
and Poster Session

Preparing road infrastructure for mixed vehicle traffic flows (automated, connected and conventional driving): the INFRAMIX project approach	Mr. Vicent Pastor /ENIDE
EnABLES Transnational Access Programme: Free of charge access to equipment, tools and expertise to do 'powering IoT' feasibility studies in research centres across Europe	Mr. Mike Hayes /Tyndall National Institute
COMPOSITION Ecosystem for optimizing production and external collaboration in manufacturing	Dr. Markus Eisenhauer /Fraunhofer FIT
EXCELL - Actions for Excellence in Smart Cyber-Physical Systems applications through exploitation of Big Data in the context of Production Control and Logistics		Dr. Anja Linnemann /Fraunhofer FIT

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ENVIRONMENTAL SUSTAINABILITY OF PRODUCTS AND SERVICES FOR CITIZENS

09.00	Introduction to Day 2 sessions	Dr. Maurizio Spirito /ISMB
09.10 Keynote speech	What's new on renewable energy and transportation markets	Eng. Paolo Pietrogrande /Netplan Management Consulting
09.40 Plenary session	Internet of Things (IoT) for Smart Road	Mr. Roberto Gavazzi /TIM
	Cluster 2.0, leveraging the potential of European Logistic Clusters	Mr. Vicent Pastor /ENIDE
	Cargo Sous Terrain - A new, sustainable approach to transportation	Dr. Uwe Kubach /SAP SE
	How ICT is helping to shape railways of the future	Mr. Daniele Trentini /SIRTI S.p.A.
10.40 Coffee break		
11.30 Plenary session	Smart Electricity Grids: from flexibility to smart transformers	Prof. João Martins /Universidade Nova de Lisboa
	Smart-grid in action: the Sello case in Finland	Ms. Sara Filippini /Siemens S.p.A.
	Prosumers collaboration schemes and awards in Demand Response programs: the DELTA project approach	Dr. Dimos Ioannidis /CERTH
	Artificial Intelligence and user engagement for resilient and safer cities	Mr. Vittorio Di Tomaso /CELI s.r.l.
	Bio-inspired solutions for smart and green cities	Ms. Elena Deambrogio /City of Torino
12.45	Closing remarks	Dr. Markus Eisenhauer /Fraunhofer FIT
		Dr. Maurizio Spirito /ISMB
13.00	See you in 2019 in Sankt Augustin	

ENVIRONMENTAL SUSTAINABILITY OF PRODUCTS AND SERVICES FOR CITIZENS

09.00 Introduction

09.10
Keynote speech

WHAT'S NEW ON RENEWABLE ENERGY AND TRANSPORTATION MARKETS

Eng. Paolo Pietrogrande

Netplan Management Consulting

Paolo Pietrogrande is Managing Partner of Netplan Management Consulting, assisting organizations manage through turbulent situations and passionately sharing his 38 years of professional experience. Currently he is Board Member of Falck Renewables, Iren (Utility) and SMRE (automation and smart mobility). Formerly CEO of Enel Green Power, of Gamesa Solar/9 REN (Madrid), of Solopower (semiconductors, Silicon Valley), of NCA (shipbuilding, Italy), Chairman of GOVECS GmbH (e-mobility, Munich), Element Power Solar (developer, Oregon), Atmos (VC, Milan). Executive experience at General Electric, Enel, Bain & Co, KTI (engineering). Formely BoD member at Pirelli, Ryanair, Ducati Motor, Camco, all stock listed. Chemical Engineer by training, co-author of books on energy and fuel cell technology.

09.40
Plenary session

INTERNET OF THINGS (IOT) FOR SMART ROADS

5G mobile IoT Networks and Cloud Platform technologies are important assets for realizing the Smart Roads in Europe. TIM proposes for the Smart Roads the 3GPP standard and open Networks. This approach, inherited from the cellular network approach, opens the market to a multi branded ecosystem of devices and applications, providing native interoperability between different manufacturers, network providers and application providers, independently from the "origin and destination countries".

Mr. Roberto Gavazzi

5G, Smart City and Industrial
Internet Senior Program Manager,
TIM

During his career Roberto Gavazzi was responsible for the "Service Management" functional unit, for cluster of projects (Program Manager) and for Client Management (CAM - Client Area Manager). Other Roberto's jobs have been: Telecom Italia Technology Plan editor, FI PPP (Future Internet European Commission Program) Architecture Board member, Exploitation and business manager for XIFI Project. In this last period Roberto is managing Programs on 5G and IoT Services, Smart City, Smart Roads and Industrial Internet. Currently Roberto is also manager of the TIM Open Air Lab and Control Room in Torino.

CLUSTER 2.0, LEVERAGING THE POTENTIAL OF EUROPEAN LOGISTIC CLUSTERS

Clusters 2.0. vision is to leverage the full potential of European Logistics Clusters for an efficient and fully integrated transport system in Europe making optimal use of an Open Network of Logistics Clusters and hubs in the frame of Ten-T giving effective support in reaching EU Objectives on modal shift for all transportation and strengthen competitiveness of industries. To this end Cluster

2.0 aims to drive the development, coordination and management of a network of hyperconnected logistics multimodal clusters and their influence area and foster low cost, capital and investment tested shipments solutions.

Mr. Vicent Pastor

R&D&I Funding Director, ENIDE

Vicent Pastor, R&D&I Funding Officer at ENIDE, had a Master Degree in Economics from University of Valencia, Executive MBA from IESE Business School, Master in Project Management from EAE Business School and Postgraduate Degree in European Studies from UOC. Project Management Professional certified by the PMI, he developed his professional career within the area of R&D&I Project Management at International level in several European countries being responsible for a wide range of tasks. Associate Professor in EAE Business School and Professional trainer in Innovation Project Management and New Business Models based on Open Innovation & International funding schemes.

CARGO SOUS TERRAIN - A NEW, SUSTAINABLE APPROACH TO TRANSPORTATION

Globalization, urbanization and digital transformation of the retail market have led to a significant increase in freight transported, still far from reaching its climax. New approaches and concepts in logistics are requested to ensure sustainable transport and delivery of goods. In this context, Cargo Sous Terrain was founded in 2013. It aims at providing a Logistics 4.0 system for Switzerland including underground intercity freight transportation system, urban last mile distribution system, integrated IT solution to manage the overall system. SAP is both a shareholder of Cargo Sous Terrain AG and a key contributor to the urban logistics project.

Dr. Uwe Kubach

Vice President Enablement,
Digital Supply Chain and
Manufacturing, SAP SE

Uwe Kubach works as Vice President Enablement in SAP's Digital Supply Chain and Manufacturing Unit: he is responsible for enabling customers with new technologies in the digital transformation of their supply chains. In former roles, he has been responsible for the global development of the IoT extensions within SAP's technology platform and the launch of the SAP Research Center in Dresden, Germany, which he grew to one of the largest research centers within SAP. He also acts as an industrial consultant. He earned a doctorate title in computer science from the University of Stuttgart and an MBA from the Mannheim Business School and ESSEC Paris. He has been granted honorary professor from the University of Dresden.

HOW ICT IS HELPING TO SHAPE RAILWAYS OF THE FUTURE

Railways has always been the backbone of transport, a highly mechanical engineering-intensive business, instrumental in the different industrial revolutions. Today, although the railway remains at the heart of transport, there is a massive gap to be filled into an environment which is highly dependent on technology, in order to put it again in a leading role in the backbone of future digital sustainable mobility to meet the expectations of citizens, and the target of sustainability.

Mr. Daniele Trentini

Head of Innovation Management,
BU Transport Sirti

Daniele Trentini worked 17 years in Marconi and Ericsson as System Design Manager. Then for 9 years, he was R&D Manager of SIRTl and currently is Head of Innovation Management of SIRTl. He is responsible for Funded Programs and liaising with international associations like UNIFE, ERA, and the European Commission (EC). He holds the rights of

seven patents in the fields of telecommunications, railway signalling, and automation granted in USA, Europe and China. He is the technical leader of 3 projects of H2020/Shift2Rail. He is a member of the “Expert Group on Competitiveness of the Rail Supply Industry” whose task is to assist and advise the EC in promoting the competitiveness of the EU Rail Supply Industry.

10.40 Coffee break

11.30
Plenary session

SMART ELECTRICITY GRIDS: FROM FLEXIBILITY TO SMART TRANSFORMERS

The growing share of renewable sources goes hand in hand with the extensive electrification of demand. Flexible energy systems (particularly buildings), which deviate from the traditional production response by integrating decentralized storage and demand response, are an important part of the solution. Additional use of Solid State Transformers (Smart Transformers) is also expected to become a key enabler while integrating micro grids into the main grid, increasing immunity and resiliency.

Prof. João Martins

Electrical Engineering Department
Faculty of Sciences and Technology,
Universidade Nova de Lisboa
UNINOVA-CTS

J. Martins (IEEE SM'96) is an Associate Professor at the Department of Electrical Engineering, Faculty of Sciences and Technology, NOVA University of Lisbon, Portugal, and integrates the board of directors of Centre of Technology and Systems (UNINOVA) research center. Previously he was with Portuguese company DOMOTICA working on the intelligent buildings domain. He has published more than 50 scientific articles in refereed journals and books and more than 150 articles in refereed conference proceedings. His research interests are mainly in energy efficiency (alternative energies and power quality, intelligent and energy efficient buildings, energy awareness, renewables integration).

SMART-GRID IN ACTION: THE SELLO CASE IN FINLAND

The EnergyIP DEOP (Distributed Energy Optimization Platform) is an innovative solution for energy efficiency services. The system is being applied in “Sello Shopping Mall” in Finland, to connect power production and storage to the grid to optimize demand and supply in electricity market. In the presentation a description of the use case concept and the system architecture will be reported as interesting lessons learned in designing a solution for energy efficiency and microgrid load management.

Ms. Sara Filipponi

Siemens S.p.A.

After completing his Computer Science Engineering studies at Polytechnic of Milan in 1996, Sara worked for many years in different companies (Digital/Compaq/ATKearney/EDS/HP) as SW architect and business consultant mainly for railway systems, oil&gas and energy utilities, developing deep competences on distribution and transmission network management and electric vehicle infrastructure management. She joined Siemens Italy in 2015 in the Smart Grid division where she is now responsible of Grid Application area, including Energy Management and microgrid Systems, e-mobility infrastructure management system. She is also currently involved in different H2020 projects Smart Grid related topics.

PROSUMERS COLLABORATION SCHEMES AND AWARDS IN DEMAND RESPONSE PROGRAMS: THE DELTA PROJECT APPROACH

Demand response programs are established through different technologies and services, targeting heterogeneous users and expressed through different incentivization mechanisms. This presentation is about laying out such key differences, provide insights on current state-of-the art practices regarding DR business models' application to the final customers and present the DELTA project approach on collaboration and award schemes utilization into DR strategies.

Dr. Dimos Ioannidis

Senior Research Associate,
CERTH

Dimosthenis Ioannidis is a Senior Researcher Associate in CERTH. He is a Certified Electrical & Computer Engineer, with a MSc. in Advanced Communication Systems and Engineering and a PhD on «Privacy-aware human presence and movement analysis in controlled and uncontrolled environments». His main research interests include computer vision, signal analysis, visual analytics, energy efficiency, security ecosystems including R&D on blockchain and decentralized Apps. He has been the (co)author of more than 30 papers in refereed journals, edited books, and international conferences. He has also been involved in more than 20 research projects funded by the EC and the Greek secretariat of Research and Technology.

ARTIFICIAL INTELLIGENCE AND USER ENGAGEMENT FOR RESILIENT AND SAFER CITIES

Project I-REACT aims to create a data driven system to improve the resilience of the society as a whole to natural hazards and meet sustainable development goals. I-REACT couple together several information sources, including Copernicus-EMS maps, European early warnings, Satellite-Data, Open-Data, UAVs images and videos, social-media and crowdsourced information. All this data are merged and processed by means of Artificial Intelligence to provide added-value services and products such as a decision-support system for authorities and a mobile application for citizens.

Mr. Vittorio Di Tomaso

CEO, CELI s.r.l.

Vittorio Di Tomaso graduated in Philosophy of Language at the University of Torino and attended a PhD course in Linguistics at the Scuola Normale Superiore of Pisa. He was co-founder of CELI - Language Technology, a company specialized in Artificial Intelligence and Natural Language Processing, of which he is Chairman and Managing Director. He also participated in the foundation of Blogmeter, the most advanced Italian social media intelligence platform and Synapta, innovative start-up spin-off of the Nexa Center of Politecnico Torino. Fascinated by language and its uses, he has worked on the application of artificial intelligence in every advanced human-machine interaction context. He has taught at several Italian Universities and is author of scientific publications.-up spin-off of the Nexa Center of Politecnico Torino. Fascinated by language and its uses, he has worked on the application of artificial intelligence in every advanced human-machine interaction context. He has taught at several Italian Universities and is author of scientific publications.

BIO-INSPIRED SOLUTIONS FOR SMART AND GREEN CITIES

Description of the main objectives of the ProGiReg (Productive Green Infrastructure for urban regeneration in post-industrial areas) project funded under the H2020-SCC2-2017 Call for proposal. The project is aimed at demonstrating the integration of nature-based solutions (NBS) into business models which are economically self-sustaining and which provide multiple benefits for the economic, ecological and social regeneration of deprived urban areas suffering from the consequences of de-industrialisation.

Ms. Elena Deambrogio

Head of Smart City and EU project
Office, City of Torino

With a study background in the field of EU Affairs and a Master Degree in General Management, Elena Deambrogio has been working for the last 12 years at the City of Torino, EU funds, economic development and Innovation Department as policy and project officer in the field of urban innovative policies. She manages Torino City Lab initiative and is in charge of the internal working group "IoTorino" aimed at the development of coordinated strategy and the deployment of coherent infrastructures and sensor networks accordingly in the view to promote data-driven policies and services. Furthermore, she is involved in the monitoring of implementation of NOP Metro 2014-2020 and program manager of several Ec-co-funded projects in the field of ICT, Open Innovation, Urban Regeneration, Environment and Circular Economy. In particular, she is the local coordinator of the ProGiReg project funded under the H2020-SCC2-2017 Call for proposal.

TORINO 2018

