EPI - **European Processor Initiative**

Periodic Dissemination and Communication report

Deliverable D24.2

Version N°1.0

DOCUMENT SUMMARY INFORMATION

Project Title	**European Processor Initiative**
Project Acronym	EPI
Project No:	826647
Call Identifier:	H2020-ICT-2016-2017/H2020-ICT-2017-2
Project Start Date	01/12/2018
Related work package	WP 24
Related task(s)	
Lead Organisation	UNIZG
Submission date	30/11/2019
Dissemination Level	PU

History:

Version	Date	Author	Affiliation	Comment
R.0.1	5/11/2019	Katarina Vukušić	UNIZG	First outline
R.0.1	15/11/2019	Mario Kovač	UNIZG	Comments, adjustments
R.0.1	28/11/2019	Katarina Vukušić	UNIZG	Adjustments according to internal reviewers' and WPLs comments

Quality Control:

	Who	Affiliation	Date
Checked by internal reviewer	Madeleine Gray	BSC	24/11/2019
	Fabrizio Magugliani	E4	27/11/2019
Checked by Task Leader			
Checked by WP Leader	Mario Kovač	UNIZG	28/11/2019
Checked by PMO	Anna Riverola	BSC	29/11/2019

COPYRIGHT

ACKNOWLEDGEMENTS

DISCLAIMER

Table of contents

Table of Figures

List of Tables

Executive Summary

This document provides data on all Dissemination and Communication activities in the first year of the project from M1 to M12.

The main goal of dissemination and communication in the first year of activities was to establish an online and offline presence in sectors of interest with respect to EPI's mission and vision – for example, scientific and industrial conferences, trade shows, summer schools, in the field of HPC, semiconductors, automotive industry and academia. This presence was planned in order to build the Initiative's brand and raise awareness of what we are trying to accomplish in the long run – develop a low-power microprocessor that would increase Europe's technological sovereignty in the race towards exascale.

This report also gives overview of the materials and channels that were set up for this purpose – visual identity created and applied to online communications (website, social media), offline communications (posters, roll-ups, flyers, promotional materials) and internal communication (templates, teasers). These provided the foundation for the activities.

This document provides a qualitative and quantitative report of activities to complement that provided for the Funding and Tenders portal.

Activities are reported based on reporting requirements from the Funding and Tenders portal, but coupled under higher category, to facilitate readability. The activities are grouped under **Events**: organization of a conference, organization of a workshop, exhibition, flyer, training, participation to a conference, participation to a workshop, participation to an event other than a conference or a workshop, brokerage event, pitch event, trade fair, participation in activities organized jointly with other EU projects, other; under **Interviews/press releases/magazines**: non-scientific and non-peer-reviewed publication (popularized publication), communication campaign (e.g. TV, radio), video/film, press release, **Scientific publications** and under **website and social media**.

For the sake of comprehensive reporting, these categories were coupled under more general types that correspond to chapters in this document, with tables addressing the activity, groups of attendees and key messages directed at those attendees.

Keywords

Dissemination, communication, channels of communication, messages, social media, events, journals, interview, media, magazine

Abbreviations

CEO – Chief Executive Officer

DC – Dissemination and Communication

Dx.x – Deliverable (followed by a number)

EPAC – European processor accelerator

EPI – European Processor Initiative

EU – European Union

HPC – High-performance computing

IP – Intellectual Property

SGA – Specific Grant Agreement

WP – Work Package (followed by a number)

WPL – Work Package Leader

1 Introduction

EPI officially started in December 2018, with the kick-off held in Brussels on December 18-19, 2018. However, even before the official start of the project, consortium members participated in events to introduce EPI as an initiative, following the European Commission's press releases and communications about its start.

Having in mind the confidential nature of EPI's results and the numerous partners in the consortium, the consortium has, during the first year of the project, defined rules to enable creating, approving and reporting on DC content.

Seeing that the first year of a project of EPI's size and intricacy could not possibly result in having publishable results right away, the consortium focused on raising awareness of EPI to a wide range of stakeholders through its dissemination and communication activities, namely participation in events, submitting general overview papers for publication, giving interviews, writing texts for magazines and with publication of press releases for newsworthy content. It is the goal of WP24 to cover these activities via EPI's social media channels and website, which are also used to facilitate communication with the community regarding EPI's goals, plans and the roadmap.

Chapters of this deliverable present those materials, and all DC activities with key messages EPI members gave to attending audiences at events, publishing articles and giving interviews, submitting scientific publications, and all of this with coverage on social media and the website.

The Specific Grant Agreement 1 (SGA1 – 826647) and D24.1 Dissemination and Communication Plan delineated three objectives of EPI dissemination and communication:

- **Dissemination/Communication for Awareness of project results:** The main objective is to raise awareness of project results by promoting the project, communicating its vision and presenting results achieved. Proper management of communication flows is essential.
- **Dissemination/Communication for Understanding:** The objective is to contribute to knowledge and understanding by publishing the project results to selected target audiences within the international industry, academic and general public communities.
- **Dissemination/Communication for Action:** Aiming to stimulate interactions with external stakeholders and policy makers during the project. External stakeholders can provide relevant support for EPI project.

Those can be linked to DC strategy planning phases, also stated in D24.1:

- Initial phase: project activities have been started but no results can be expected
- Mid phase: the project has reached formidable research phase, some preliminary results are available, roadmaps are more defined, preparations for implementation are under way
- Final phase: EPI SGA1 results are becoming available, samples available, evaluations of results are under way

In the first year of the project, WP24 work has aimed at **achieving awareness** about the project in its **initial phase**, because project results are not yet expected, in order to bring together the stakeholders,

make the HPC ecosystem and industrial players aware of EPI's work and, respecting IP protection and confidentiality clauses, build awareness about EPI's strategic plan.

Building awareness has been done through the consortium's participation in a series of events, communicating with the public via website and social media, submitting papers for various conferences and journals and by organizing EPI's first tutorial after the first half of the first year of the project.

2 Branding and visual identity

This chapter briefly lists the materials created in order to create a unifying visual identity and brand in EPI, as a vehicle of creating awareness.

A new logo has been created for EPI, with accompanying book of graphical standards for its usage, and it has been consistently applied in all EPI's designed materials. Below is a collage of examples of such materials, with the one major goal – branding all DC activities with the same logo, color package and unified templates, as well as using official EPI designed materials at public events where EPI participates. Such usage of materials ensures that EPI project becomes recognizable to the stakeholders of the HPC domain and beyond, as well as the broader community (including EU institutions, other projects, members of the media and industrial sectors).

Logo

C-fold flyer

Teaser, PPTX Template

Posters

Factsheets examples

Roll-up example

Website and Social media implementation

EPI's website has been created by applying the same visual identity to solidify EPI colors, presence, brand.

Social media profile and cover photos, as well as banners and other promotional material put up, have been created in the same way – respecting the visual guidelines set in the book of graphical standards, using defined colors and fonts.

Materials accessible at:

Website: https://www.european-processor-initiative.eu/

Social media:

https://twitter.com/EUProcessor

https://www.linkedin.com/company/european-processor-initiative/

https://www.youtube.com/channel/UCGvQcTosJdWhd013SHnIbpA/featured

Promotional materials

Promotional materials have been ordered and acquired in order to furnish exhibition booths, to give away at events, and to use for further promotion of EPI visual identity and brand. The materials include website URL wherever possible. Examples of such materials and gadgets (phone hoop, USB sticks for handing away EPI materials at meetings, lanyards, keyrings):
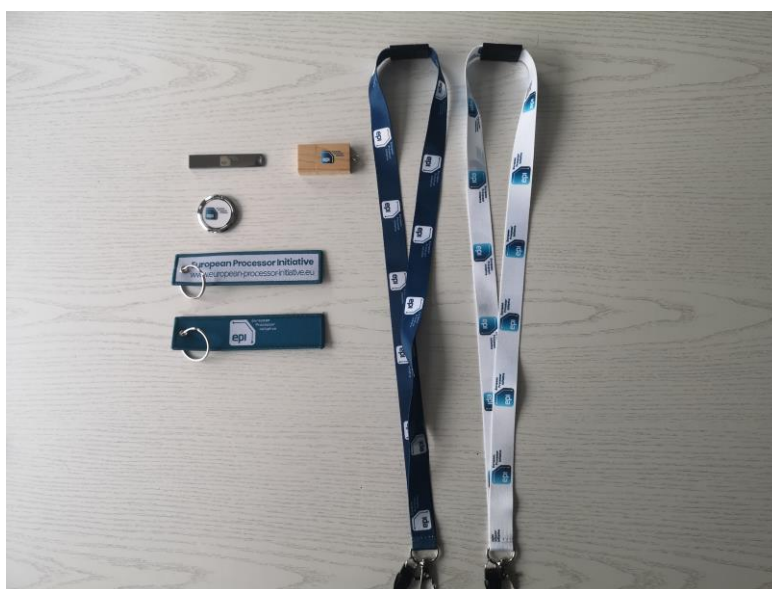
Figure 1. EPI promotional materials samples

Packs of promotional materials, along with EPI flyers, have been distributed to all 27 partners in the consortium, for their respective events.

3 Reports on main DC activities

In D24.1 Dissemination and Communication Plan, the consortium set forth a list of DC activities to execute, with the purpose of building awareness on EPI and get involved in discussions related to European HPC independence, which is EPI's mission.

3.1 Events

The consortium has participated in numerous events since the official beginning of the project, and in some before the formal beginning of the project. Participation can be divided into two groups:

1) partners going to present EPI for the entire consortium, targeted EPI participation by one or more members of the consortium,

2) partners invited in their own institution's capacity, but using the opportunity to build awareness on EPI, with slides from EPI presentation, EPI flyers, posters, roll-up, shared booth. The one-on-one communication between an institution member of the consortium discussing EPI roadmap and products to another institution (private or academic) is also important for conveying a message of endorsement by the consortium members towards the solidity of the overall EPI effort.

The following table (Table 1) gives a complete list of all events where the consortium has taken the opportunity of building EPI awareness. According to the SGA, dissemination for awareness is the key first stage of EPI SGA1 and its Dissemination and Communication Plan. Results are not yet achieved nor is the consortium ready to make them public, but under the consensus of all partners some information is made available to the public and presented at events.

Events include industrial trade fairs, scientific and academic conference, lectures, industry conferences, summer schools, and various other modalities of presenting EPI. The strategy was to attend at those with the highest possible visibility and attendance from the sectors deemed important by EPI – policy makers, industry representatives, academic partners.

The table lists events, materials presented at those events (whether it was an exhibition-type or presentation/lecture-type event), the main group of attendees per sector (academia, inudstry, civil sector, media, customers, etc.) and what was the key message communicated by EPI to those attendees through its activity.

Key figures within EPI have participated in many of the events, including the General manager, Chairman of the EPI Board, EPI Principal designers, Chief Communications Officer and directors and CEOs of EPI consortium members, showing the importance which the EPI consortium lays upon having high-profile figures represent the project at events.

In addition to these listed here, several EPI industrial partners also keep WP24 apprised of face to face meetings with their respective clients, which are not officially reported, due to confidentiality issues of their own institutions and industrial-type discussions.

Table 1. Events report

Event	Partner	Activity, materials used	Attendees group	Key message for attendees on EPI
SIA CESA 5.0	ATOS-BULL	Presentation by Philippe Notton, "Let's make advanced system on chip development in Europe great again"	Engineering and business unit managers as well as technical experts from the automotive world	EPI is at the beginning; Europe needs its own processor
ICT 2018	BSC	Presentation by Mateo Valero, "HPC Perspectives and Challenges for Europe"	One of the biggest EU events in ICT – attendees are researchers, academics, EU projects' participants, policy makers and representatives of industry	EuroHPC will help create a new European supercomputing ecosystem and make HPC resources available to users, while EPI will provide a high-performance general-purpose processor for HPC, high-performance RISC-V based accelerator and a computing platform for autonomous cars.
Meeting at Centro de Investigación en Computación del IPN	BSC	Presentation by Mateo Valero, "HPC Perspectives and Challenges for Europe"	The audience was mostly scientists, but the event also afforded the opportunity to liaise with high-level Mexican policy makers.	Europe needs to be stronger before explaining why the EU needs its own processors and what EPI will deliver (high-performance processor, high-performance accelerator, platform for autonomous cars).
The first R-CCS international symposium	ATOS-BULL	Presentation by Yingchih Yang, "Europe strikes back on HPC"	Academia, industry, high-profile attendees in HPC area invited by RIKEN	EPI has officially started, and it is here to help Europe achieve independence in HPC technologies – which is essential if Europe wants to stay in the race to exascale. EPI wants to make HPC European again!
MWCongress	BSC	Presentation by Mateo Valero, "Mobiles: on the road to Supercomputers"	Industry	A brief overview of the history of computing and then explains the need for European technological sovereignty. It then explains the background to EuroHPC before discussing what EPI will deliver (high-performance processor, high-performance accelerator, platform for autonomous cars).

Supercomputing Asia	ATOS-BULL	EPI flyers in the booth, roll-up, presentation by Jean-Marc Denis, "EPI Teaser"	Representative event for supercomputing in Asia – scientific, industry, civil society and policy makers	EPI has officially started, and it is here to help Europe achieve independence in HPC technologies – which is essential if Europe wants to stay in the race to exascale.
DATE Conference and Exhibition	UNIPI, E4, BSC	EPI flyers in the booth, poster, roll-up	Research and industry representatives	Demo on FPGA prototyping platform of some of the cybersecurity IP under development by UNIPI; first presentation of new visual identity (EPI branding)
Swiss Conference & HPCXXL User Group	UNIZG-FER	Presentation by Mario Kovač, "European Processor Initiative: The EuroHPC Industrial Cornerstone"	Industrial representatives	Europe needs its processor – to achieve political, economic and data sovereignty, EU introduced EuroHPC into the play and made EPI its strategic cornerstone. Beyond that, EPI explores other markets, like automotive to make the initiative sustainable.
Industry Strategy Symposium	BSC	Presentation by Mateo Valero, "BSC Roadmap for HPC in Europe"	Semiconductor event – industry participants	Background on the race towards exascale and where Europe needs to be stronger. It explains the evolution of Arm-based technologies at BSC and in European projects before turning to open hardware. It then goes on to explore the background to EuroHPC and the European HPC roadmap, followed by an introduction to EPI and the EPI roadmap.
SAE Conference	BMW	Presentation and Scientific Paper by Dominik Reinhardt, "High Performance Processors Architecture for Automotive Large Scaled Integrated Systems within the European Processor Initiative Research Project"	Scientific audience, industry	Paper tackling autonomous driving systems and connected mobility, which are the next big developments for the car manufacturers and their suppliers during the next decade. To achieve the high computing power needs and fulfil new upcoming requirements due to functional safety

				and security, heterogeneous processor architectures with a mixture of different core architectures and hardware accelerators are necessary. To tackle this new type of hardware complexity and nevertheless stay within monetary constraints, high performance computers, inspired by state-of-the-art data center hardware, could be adapted in order to fulfil automotive quality requirements. EPI tries to come along with that challenge for next generation semiconductors.
National conference on 5G and the Mobility of Tomorrow	UNIPI	Poster and presentation by Sergio Saponara, "European Processor Initiative: embedded High-Performance Computing for Automated and Connected Vehicles"	Mixture of science and industry representatives, with several policy makers attending	Introducing EPI and its enabling opportunity as a European technology for 5G-based vehicular connectivity; first Tweet from an event by EPI account
Computing Frontiers	UNIZG-FER	Presentation by Mario Kovač, "European Processor Initiative: The Industrial Cornerstone of EuroHPC for Exascale Era"	Attendance composition industry and researchers	HPC is crucial to resolve societal challenges and preserve European competitiveness. Europe is going in the right direction with EuroHPC. This must be sustained in the long-term. The chip design effort must continue for the EU's security and competitiveness, and should create a processor ecosystem covering IoT, servers, cloud, autonomous connected vehicles and HPC.
Numerical Combustion 2019	SURFsara	EPI flyers at the booth	Academic experts in integration of theory, modelling, and numerical algorithms to perform high-fidelity simulations of fundamental combustion physics and technological applications	SURFsara's exposure of EPI at their booth at NC2019, presenting EPI flyers and inviting participating in their presentation to take materials at booth.

| EuroHPC Summit Week | BSC, ATOS-BULL, FZJ, CEA, CINECA | Co-design workshop, EuroHPC: Co-designing with the European Processor Initiative; HPC Ecosystem Workshop: What to expect from upstream technologies; Presentation by Mateo Valero, "Pilots and system-level co-design: The BSC vision" | Researchers, policy makers, industry representatives | BSC presentation was given to an audience of researchers, policy makers and industry at one of Europe's most important HPC events. It discusses the race to exascale and Europe's position, before turning to EPI and the opportunities it provides to co-develop an HPC/AI software ecosystem for RISC-V, provide hardware for more EU projects and bring together the main players in the field.

At the Co-design workshop, EPI panellists' message was emphasizing the importance of selecting a set of communities and involving them strongly in the co-design process. The communities should be those that really need Exascale performance, have high societal impact and are committed to participate in the co-design work. The systems in question will be heterogeneous and it is important to make them as user-friendly as possible; therefore, the middleware and programming environment play a very important role.

At the upstream technologies workshop, EPI presenter's message was that EPI common platform is built to leverage heterogeneous integration at several levels: System-on-Chip, die, socket, board |
| **The 4th International** | ATOS-BULL | Presentation by Yingchih Yang, "From EPI to | Industry event invited by NUDT, | HPC is crucial to resolve societal |

High-Performance Computing Forum		ExaScale"	China	challenges and preserve European competitiveness. Europe is going in the right direction with EuroHPC. This must be sustained in the long-term. The chip design effort must continue for the EU's security and competitiveness, and should create a processor ecosystem covering IoT, servers, cloud, autonomous connected vehicles and HPC.
Design Automation Conference	Menta	Shared booth, EPI flyers	Attendance composition industry and researchers	EPI materials exposure at one of the premier conferences for design and automation of electronic systems
Journée scientifique 2019 du Criann	ATOS-BULL	Presentation by Romain Dolbeau, "European Processor Initiative (EPI): a High Performance, High Efficiency Processor for HPC"	Scientific audience	Annual comparison in progress – creation and start of EPI in the meantime, with Arm GPP core. EPI view as an exascale processor: specialization is the only way toward energy efficiency; Bytes/FLOP has to be improved for new HPC workloads.
Workshop on ICT innovation and vehicular technology and applications	UNIPI	Presentation by Sergio Saponara, "EPI as an enabling technology for smart vehicles and mobility"	Attendance composition industry and researchers	Introducing EPI and its enabling opportunity as the European processor for next generation cars, which will be Autonomous Connected Electrified and Shared (ACES)
Teratec forum	ATOS-BULL, BMW	EPI posters, flyers at EPI booth; presentation by Matthias Traub, "Electric/electronic architecture as an enabler for connected mobility and automated driving"	Majority attendance research and academic, with one third industry representatives and several media outlets	Introducing EPI into an event visited by the policy makers of the highest level – EPI booth with posters, flyers; BMW presentation introduces EPI as the one that supports further roll-out of HPC in automotive e/e systems.
PowerStack workshop	UNIBO	Presentation by Andrea Bartolini, "Powerstack"	Attendance composition industry and researchers	EPI is getting ready for exascale power management challenges
RISC-V Workshop	ETHZ	Presentation by Luca Benini, "Energy efficient computing from Exascale to MicroWatts: The RISC-V playground"	Attendance composition industry and researchers	Moore's Law is in its twilight, which brings about opportunity for innovation. EPI is part of that, because Europe needs its own

				processor. RISC-V based architectures could provide some opportunities.
WOSH	UNIZG-FER, BSC	Presentation by Mario Kovač, "EPI: The Industrial cornerstone of EuroHPC for Exascale Era", presentation by Mauro Olivieri, "EPI and beyond: perspectives of a European supercomputing center on open-source hardware and software"	Attendance composition industry and researchers	HPC is crucial to resolve societal challenges and preserve European competitiveness. Europe is going in the right direction with EuroHPC. This must be sustained in the long-term. The chip design effort must continue for the EU's security and competitiveness, and should create a processor ecosystem covering IoT, servers, cloud, autonomous connected vehicles and HPC. BSC perspective on open-source hardware in general and particularly within the context of EPI. EuroHPC represents a significant investment by the EU in an attempt to gain ground in the race to exascale. Home-grown European microprocessor technologies are a key plank of this programme. BSC has championed innovative architectures for supercomputing, including Arm-based technologies as in the Mont-Blanc project. BSC views RISC-V as representative of a future which is open and which is democratizing chip design.
ISC2019	UNIZG-FER, E4, CEA, ATOS-BULL, EXTOLL	EPI booth with flyers, posters, roll-up; shared booths by E4, Extoll, CEA, presentation by Philippe Notton, "EPI Update"	A large number of researchers, industrial representatives, exhibitors, media	EPI and its partners build awareness about EPI official start at the biggest HPC-oriented event since the beginning of the project. General manager attends Arm User group meeting – EPI, updates the community with the latest developments and a general idea

				about what Europe is trying to achieve in terms of sovereignty
NEWCAS 2019	Kalray	Invited talk by Benoit Dupont de Dinechin, "MPPA® ManycoreProcessor: At the heart of Intelligent Systems"	Academic (researchers)	Kalray's presentation on standard safety in automotive, with the global message about EPI: Kalray is part of the initiative, MPPA is within EPI ecosystem
FEDfRo'2019	ATOS-BULL	Presentation by Yingchih Yang, "EPI processor and its robustness requirements"	Academic (researchers)	Robustness in HPC systems and robustness in automotive – EPI is developing a common platform to integrate heterogenous technologies, acceleration technologies for HPC workload, automotive-compatible acceleration technologies and a low-power GPP processor chip targeting HPC application and automotive industry. Main challenges are robustness/reliability, so robust engineering is one of key pillars in EPI and future industries.
ACACES 2019 HiPEAC Summer school	BSC	Presentation by Mauro Olivieri, "The strategic touch between supercomputers and embedded systems in the roadmap towards exascale: the European Processor Initiative"	early career researchers, with some senior academic researchers, entrepreneurs and industry representatives present	Why HPC is important, along with an overview of technology trends in both supercomputing and edge computing, and an indication of how the two fields are merging with higher performance demanded in embedded applications, while low-power processors originally intended for embedded computing have crossed over into the HPC market. A detailed look into EPI and why the need for European sovereignty in compute technology, with explanations of the EPI approach and preliminary architecture designs.
Summer School	UNIPI	Lesson by Sergio Saponara, "Lesson:	Early career researchers, students	EPI trends and EuroHPC initiatives to

Enabling Technologies for Industrial IoT		Embedded High-Performance Computing: the challenge of the H2020 European Processor Initiative"	international students and young researches – EPI teaser
Pierburg Rheinmetall workshop: La fusione tra Meccanica ed Elettronica, a quali cambiamenti sta portando: Esperienze R&D, Produzione, Qualità, Risorse Umane	UNIPI	Presentation by Sergio Saponara, "Integration of mechanical and electronic engineering: trends and challenges in education, research and technology transfer"	Industrial attendees, event hosted by Pierburg Rehinmetall automotive plant in Livorno, Italy	Introducing EIP to a selected group of industries and its enabling opportunity for the European automotive industry and the EU processor for next generation cars which will be Autonomous Connected Electrified and Shared (ACES)
Campus Party IT	CINECA, E4	Presentation by Carlo Cavazzoni, "The EURORA supercomputer project and the energy efficiency challenge for the future of computing"	Young researchers, MS and PhD students, start-uppers, creatives and influencers.	EURORA and how it fits into the EPI roadmap, what are the objectives of EPI and how these objectives may be supported by the young researchers
Flash Memory Summit	Kalray	EPI flyers at the booth	Industrial audience with interests in the design, development, integration, marketing, use, or support of Flash Memory	Computational Storage Solutions using MPPA
IEEE CAS school Circuits & Systems for IoT	UNIPI	Presentation by Sergio Saponara, "Internet of things for automotive industry: New trends in circuits and systems"	Young researchers	EPI and EuroHPC and next generation automotive segment – the basics.
Continental workshop: The future of Powertrain Technologies – Opportunities from Pisa and surrounding	UNIPI	Presentation by Marco Raugi, Sergio Saponara, "7 Centuries of Education, Research and Technology Transfer for Excellence- The automotive showcase"	Industrial partners – event hosted by Continental plant in San Peiro a Gardo, Pisa, Italy	Introducing EPI and its efforts to a select group of industries and its enabling opportunity for the European automotive industry as the EU processor for next generation cars which will be Autonomous Connected Electrified and Shared (ACES)
Italian Workshop on Parallel and High-Performance Computing Technologies	UNIBO, E4	Presentation by Andrea Bartolini, "EPI Introduction", EPI mentioned in 3 slides in the presentation of Fabrizio Magugliani showing the plans for developing an E4 product based on EPI technology	Italian scientists and industrial partners	EPI unveils its roadmap and opportunities to the whole Italian HPC academia and industrial ecosystems. The performance of EPI Rhea family of processors with optimized algorithms and runtimes is teased.

73rd HPC User Forum	ATOS-BULL	Presentations by Jean-Marc Denis, "European Processor Initiative" and "EuroHPC Update"	Academia, Large US HPC labs, Industry, analysts and journalists	EPI's goal is to develop a complete EU designed high-end microprocessor, addressing Supercomputing and edge-HPC segments EuroHPC is progressing, it is a billion-Euro investment by EU and Member States to Establish an integrated world-class supercomputing and data infrastructure and support a highly competitive and innovative Supercomputing and Big Data ecosystem
ApplePies: Applications in Electronics Pervading Industry, Environment and Society	UNIPI, ST, CINECA, E4, UNIBO	Panel session "Trend on EuroHPC and the European Processor Initiative"; Paper presentation on EPI research activities on Posits	Academia, minor attendance by industry, MSc and PhD students	The round table presented the contribution of Italian-based institutions and enterprises towards the maximization of the results achieved through exascale-class systems both from the scientific and research point of view as well as from the industrial point of view It also addressed show how the synergies among the key players have created a native Italian ecosystem fully aligned within the EuroHPC JU and EPI initiatives for enabling exascale-class systems to support scientific leadership and industrial competitiveness. Paper: a fast approximation of another activation function widely used in DNNs: the hyperbolic tangent. In the experiment, authors show how the approximated hyperbolic function outperforms the approximated sigmoid counterpart. The implication is clear:

				the posit format shows itself to be again DNN friendly, with important outcomes.
ParCo2019	ATOS-BULL	Presentation by Jean-Marc Denis, "European Processor Initiative: the European vision for exascale ages and beyond"	Academia, minor attendance by industry	After explaining several components of EPI work, the presentation arrives at a conclusion that EPI will not be used because it is engineered in Europe, but because it is the best and cost-effective solution; EPI needs to be delivery and product oriented and recreate a real ecosystem for deep node microelectronics.
ARM Research Summit	ATOS-BULL	Presentations by Romain Dolbeau, "FFTW3: Leveraging the SVE", Yingchih Yang, "EPI Update"	Industry	Discussions: gathering expertise from various research groups (runtime systems, linear algebra, operating system, performance modelling, …) and discussing key features and shape next-generation applications – with how EPI fits into this
AutoSens	Kalray	Exhibition booth, EPI flyers	Automotive industry	Kalray's presentation on standard safety in automotive, with the global message about EPI: Kalray is part of the initiative, MPPA is within EPI ecosystem
RES User conference	BSC	Presentation by Mateo Valero, "El futuro MareNostrum 5 y el procesador europeo"	senior researchers, industry representatives and students	The presentation addresses global race towards exascale, with the United States as an indicative example (with EuroHPC initiative and the pre-exascale MareNostrum 5 supercomputer to be funded within it). Europe is well-placed in HPC software, the key hardware elements are missing. BSC championed Arm-based architectures for

				supercomputing through projects such as Mont-Blanc, but European technological sovereignty is needed - RISC-V and open software/hardware more generally can help Europe achieve technological independence. EPI and related initiatives offer exciting opportunities for computing researchers at BSC.
TSMC OIP Forum USA	Menta	Exhibition booth, EPI flyers	Semiconductors design community and ecosystem	EPI materials exposure at a conference of significance in the semiconductor design community and its ecosystem partners
RISC-V Week Program	ATOS-BULL, CEA	Presentation by Romain Dolbeau, "European Processor Initiative: challenges & opportunities for RISC-V accelerators in an HPC platform", Denis Dutoit, "European Processor Initiative: First steps towards a made-in-Europe high-performance microprocessor"	Scientific audience, minor industry attendance	Messages on how to leverage the currently anticipated architecture of the EPI design in the software, using open standards: how EPI is developing IP for a set of RISC-V-based accelerators designed to connect directly to the processor network-on-chip. Overall EPI summary to a group of French academics interested in RISC-V.
Edge Comuting: For when the cloud is too far away	E4	Presentation by Fabrizio Magugliani, "Oltre l'Edge Computing (Beyond Edge Computing)"	Predominantly industrial (Nebbiolo Technologies, IBM, iProd srl, STMicroelectronics) attendance with academic (Politecnico di Milano, Università di Messina) participants, MSc, PhD students	There is a need for integrating the different streams of data (coming from IoT, the Edge, Industry 4.0 and similar sources) in a consistent view, including the pre-processing of data at the Edge and a HPC-powered analysis in a centralized facility, applying AI and HPDA techniques to the streams and then storing and capitalizing on the 'knowledge' extracted from the data. EPI's specifications are ideal for these

				requirements.
IEEE I&M Chapter/GDR SoC2 Workshop	UNIPI	Distinguished lecture by Sergio Saponara, "Instrumentation and Measurement and Autonomous Driving"	Scientific community	Posits have the potential to overcome most of the float issues in Machine Learning and DNN computing (allow to reduce the bandwidth bottleneck problem during read/write from/to RAM; have beneficial effects on vectorizable applications, since data are generally shorter, they are more cache friendly, every time a posit8 can replace a float16, a posit16 a float32 and a posit32 a float64 (i.e., in most of the applications))
74th HPC User forum	ATOS-BULL	Presentation by Jean-Marc Denis, "European Processor Initiative"	Academia, Large US HPC labs, Industry, analysts and journalists	EPI's goal is to develop a complete EU designed high-end microprocessor, addressing Supercomputing and edge-HPC segments
75th HPC User forum	ATOS	Presentation by Jean-Marc Denis, "European Processor Initiative"	Academia, Large US HPC labs, Industry, analysts and journalists	EPI's goal is to develop a complete EU designed high-end microprocessor, addressing Supercomputing and edge-HPC segments
Shanghai Tongji Automotive Summit	KIT	Presentation by Jurgen Becker, "Automotive Electronics & Research @ KIT"	Industry and academia representatives	Raising awareness of the project in China. Many participants, both suppliers and OEMs are struggling with the computing demands of recent technologies in ADAS.
IDCS2019: The 12th International Conference on Internet and Distributed Computing Systems	E4	Speech at the plenary session by Fabrizio Magugliani	Scientific community with industry representatives, MSc, PhD students	Speakers at the conference detailed how to maximize the effectiveness of different architectures and components. While these components are ideal for analysing data at the Edge, more elaborate analysis demands the use of more powerful systems. Having the same

				Instruction set at the Edge (running Arm devices) as well as in the centralized computing facility is definitely a value, making the EPI processor ideal for seamless integration of the data streams with the EPI-powered centralized facility.
ARM TechCon USA	Menta	EPI flyers at the booth	Industry representatives	EPI materials exposure at a conference of one of EPI's key relationships
CompBioMed kick off meeting	UNIZG-FER	Remote presentation by Mario Kovač, "European Processor Initiative: The Industrial Cornerstone EuroHPC for Exascale Era"	Academic and industrial partners of CompBioMed consortium	HPC is crucial to resolve societal challenges and preserve European competitiveness. Europe is going in the right direction with EuroHPC. Presentation of EPI goals for BioMed scientists that intend to use future HPC systems with EPI processors.
HiPEAC CSW Autumn 2019	BSC, FORTH	EPI flyers, posters	academic and industry representatives, students	EPI flyer message – mission, vision, impact and fundamental information about the streams, technical overview of EPI through poster.
International CAE Conference	E4	EPI flyers, poster	Industry representatives using CAE, FEM and CFD applications, via the ANSYS suite	EPI will be a potential platform for addressing the need of compute-intensive CAE, FEM and CFD users.
Arm Hackathon	CINECA, FZJ, E4	Hackathon, EPI flyer, poster	Academic and industrial participants	CINECA, Jülich Supercomputing Centre, Huawei and E4 run a successful Hackathon on ARM-based architectures. The Hackathon involved more than 20 participants, who tested their applications on 2 ARM clusters using different version of the compiler and development tools. The know-how and the lessons learned by the participants will be of great interest in perspective for the EPI development.

				The optimization techniques developed in the hackathon on Arm-based clusters will be re-used in the future EPI architecture. Useful feedback from the participants has been feed-back in EPI's WP1
Open source beyond 2020 – Powering a Digital Europe	BSC	Panel participation by Jesús Labarta	Policy makers, industry, scientific community	At the panel called "The advent of Open Source Hardware and the Internet of Things", Jesús Labarta gave a presentation titled "OSH in HPC" and he argued that proprietary architecture inhibits holistic co-design: co-design may require problems to be solved at the architecture level, which is not possible if it is proprietary. The presentation presented the case for open-source core and memory designs and gives the RISC-V component in EPI as an example of this. It also introduced LOCA, the European Laboratory for Open Computer Architecture.
SemIsrael Expo	Menta	EPI materials and flyers at the shared booth	Industry - semiconductors	EPI flyer message – mission, vision, impact and fundamental information about the streams.
European Cyber Week	Prove & Run	Presentation by Dominique Bolignano, "EPI embedded security"	security experts from the defence sector, also from avionics and academia	EPI security architecture is not only extremely reliable and unique (e.g. it features flexible and powerful security domains), it is also amenable to very high-level certification and is the first one that can bring real trust.
EFECS	Atos, UNIZG	EPI booth (poster, flyer, roll-up, promotional materials),	Industry representatives, scientific audience, policy makers, media	EPI as a part of future European processor and HPC industry.
Supercomputing19	UNIZG,	EPI booth (poster, flyer, roll-up, promotional	Industry representatives, scientific	Europe becomes a new player in HPC

(SC19) Denver	Atos, CEA, EXTOLL, BSC, Kalray, FZJ, E4, CINECA	materials), EPI materials at shared booths – EXTOLL, CEA, BSC, Kalray, Juelich, Presentation by Jean-Marc Denis at the 23rd HPC Connection Workshop at SC2019; Talk and panel attendance by Jean-Marc Denis at the ETP4HPC BoF; Presentation by Yingchih Yang at the Arm HPC User's Group in SC'19, ""EPI Design Update" Presentation by Dirk Pleiter at the Arm HPC User's Group in SC'19, "Linear algebra on Arm-based platforms: from NEON to SVE" Numerous f-2-f meetings	audience, policy makers, media	technology.
PhD Workshop on Next-Generation Cloud Infrastructure	BSC	EPI PhD poster	Academia – PhD research students	Presentation of the rationale behind the EPI project, as well as its hardware architecture, with a specific focus on: the EPAC architecture and the Software Development Vehicle (SDV) activities
IEEE International Symposium on Circuits and Systems	UNIPI, Prove & Run, ETHZ, UNIBO, Elektrobit	Special session at the conference, introducing EPI and 5 papers by partners – presentations on each paper and discussion	Academia	There is the need at the state-of-art of designing power efficient processors at the core of both HPC services and embedded HPC on the edge (i.e. on-board vehicles, robots, industrial machinery, ...) To this aim Europe has founded EPI, which is part of the bigger EuroHPC roadmap. After the first year of activities first, but solid, scientific results are available. This special session presented to the IEEE circuits and system community part of the results achieved by a group of universities (Pisa, Bologna, ETHZ) and industries (Elektrobit, Prove & Run) related to cybersecurity acceleration (UNIPI and Prove & Run), posit based computing for AI (UNIPI), mixed-precision processors (ETHZ), power

				management (UNIBO), eHPC software stack for EPI automotive applications (Elektrobit).

3.2 EPI organized event – First EPI Tutorial - First steps towards a made-in-Europe high-performance microprocessor

One additional event worthy of separating from the rest was the first EPI-organized tutorial. It was held on July 17th 2019, at the Universita Politècnica de Catalunya, co-located with the ACM 2019 Summer school on HPC architectures for AI and dedicated applications. It was a half-day event with 4 lectures by EPI experts, with 46 attendees present. Materials from this event are available in the EPI Dissemination and Communication Press repository on the EPI website, while the videos of the talks are available on EPI's YouTube channel. Full report with links to all materials is available here: https://www.european-processor-initiative.eu/epi-first-tutorial-held-in-barcelona/.

The key message given to mostly academia/researcher attendees was that EPI was making its first steps towards the realization of the processor, while attendees got a chance to discuss Epi topics (Common Platform, EPAC, software, automotive aspects) in more detail with EPI staff directly.

The importance of EU wide sharing of HPC competences has been recognized as one of the key activities not only in EPI but also in EuroHPC. EPI workshops/tutorials will serve this role, with special emphasis on sharing knowledge on future EPI technology and EPI ecosystem from both HW, SW and system level.

3.3 Press releases, Magazine articles, Interviews and Coverage

3.3.1 Press releases

During the course of the first year of the project, the consortium had issued two press releases.
Based on the EPI communication planning, EPI press releases were, during this first year, published to let the wider community know about the initiative and to announce the first EU HPC processor technology framework, the Common Platform.

Press releases are always published in the Press/Media kit section of EPI website as well as in EPI's Dissemination and Communication Press repository. They are also linked to EPI's social media channels (Twitter, LinkedIn) to maximize outreach.

The second press release also announced EPI's participation in high-level events Supercomputing in Denver and EFECS in Helsinki.

Table 2. Press release list

Press release	Topic, link	Multiplied	Key message
First steps towards a made-in-Europe high performance microprocessor	https://www.european-processor-initiative.eu/first-steps-towards-a-made-in-europe-high-performance-microprocessor/	22 websites, 17 retweets, 6 shares on LinkedIn (14.28% engagement rate)	Six months has passed, EPI has delivered some architectural designs to the EC, and it welcomed three new partners.
First year of activities	https://www.european-processor-initiative.eu/european-processor-initiative-first-year-of-activities/	7 websites, 19 retweets, 4 shares on LinkedIn (9.3% engagement rate)	First year of the project, EPI roadmap is updated, Common Platform introduced, and discussions can continue at major events where EPI will be present – SC and EFECS.

3.3.2 Magazine articles and interviews

Table 3. Interview/text/article list

Interview/Text/Article	Date of publication, Publisher	Original link	Reach	Key message
Changing Approaches to HPC systems	December 2019, CIO Applications Europe	https://hpc.cioapplicationseurope.com/cxoinsights/changing-approaches-to-hpc-systems-nid-520.html	470 views on Sep 10, 2019	Europe has recognized the importance of HPC and has introduced a legal and funding entity to help bring Europe to the forefront of supercomputing. EPI is a project that will be the cornerstone of this effort, with the aim to bring to the market a low-power microprocessor and will ensure that the key competence of high-end chip design remain in Europe
Interview at the ETP4HPC General Assembly	April 4 2019, Primeur Magazine	http://primeurmagazine.com/weekly/AE-PR-05-19-4.html; https://www.youtube.com/watch?v=8ENX-vBlN8E	91 views on Nov 11, 2019	Within the discussion on ETP4HPC and EU efforts in exascale supercomputing, EPI is the first native and well-funded initiative to develop a native European processor where we basically disengage from the technological dependency to the non-European processors. EuroHPC is driving the creation of the ecosystem and is also nurturing this processor which will enable Europe to be technologically independent from anybody else in the world.
Homegrown high performance: The European Processor Initiative (EPI)	April 2019, HiPEAC	https://www.hipeac.net/magazine/7151 p. 12-13	1,000 physical copies sent/distributed, 274 downloads, 341 reads and 1692 impressions on Issuu	Europe has recognized the importance of HPC. EPI is a project that will be the cornerstone of this effort, with the aim to bring to the market a low-power microprocessor and will ensure that the key competences of high-end chip design remain in Europe

European Processor Initiative Builds In-Europe Processor Technologies for High-Performance Computing and Beyond	April 2019, Gauss Centre for Supercomputing	https://www.gauss-centre.eu/news/publications/inside/inside-spring-2019/ p. 16-17	Publisher does not have download numbers	EPI processing units address the requirements of HPC, but also keep much larger market sectors in mind, including the automotive, cryptography, artificial intelligence industries and trusted IT infrastructures. With this approach, EPI will deliver competitive and commercially successful computing technologies, reducing Europe's dependency from international (USA, Asia) providers.
European Processor Initiative to develop Common Platform for general purpose microprocessor and accelerators for exascale machines and automotive industry	November 4 2019, Primeur Magazine	http://primeurmagazine.com/weekly/AE-PR-12-19-1.html; https://www.youtube.com/watch?v=plk9YAeH73o&feature=youtu.be	32 views on Nov 11, 2019	Recent developments in EPI: the design strategy of the general-purpose processor, the main specifications, and the accelerators. What follows is a concrete development with the ambition to tape out at the end of next year. EPI is using existing IP/developing similar IP, so this is compatible and achievable with lower risks. From the tape-out to the real product that EPI can deliver in volume, predictions are that those will take another 1,5 year. EPI plans to deliver the first generation of the product to the supercomputer manufacturers by the second half of 2022.
Un chip europeo para la soberanía tecnológica	July 26 2019, El Pais	https://elpais.com/tecnologia/2019/07/22/actualidad/1563790049_153667.html	EPI LinkedIn 2089 impressions, 7,28% engagement rate	Introduction of EPI by high-level speakers from Atos, BSC and BMW. Europe needs sovereignty, though it doesn't have factories to produce the chips, the design and IP will be European.
We want to have a very important role in next-generation HPC platforms in Europe.	October 31 2019, The CEO Magazine	https://www.theceomagazine.com/executive-interviews/it-electronics/francesco-morsiani/	380 views, 240 unique users	Support of EPI by one of its industrial partners in all public communication, such as this. "As a member of the EPI, our intentions are clear: we want to have an active and

				very important strategic role for growing the HPC and AI community in Europe," he affirms. Being a member of such an initiative, Francesco explains, is incredibly important to the company. "We love to play this role. We want to have a very important role in next- generation, HPC platforms in Europe."

3.3.3 Press coverage

The project generated quite a lot of press coverage even before it officially began. The European Commission has also published several press releases and information bits on the Initiative.

With the creation of EPI's social media channels and website, communication could be solidified and unified, so EPI awareness could be achieved. The establishment of those channels was followed by the publication of EPI's first press release (June 4 2019). The subsequent coverage is reported here, with summaries of messages conveyed by the media about EPI.

Table 4. Press coverage list

Link/place of publication	Media	Topic/Title	Coverage
https://www.datacenterdynamics.com/analysis/superpowers-supercomputers-and-race-exascale/	Datacenter Dynamics	The race to exascale: A story of superpowers and supercomputers	Author discusses advancements of actors in the race to exascale, Juan Pelegrin on EuroHPC and Philippe Notton on the beginnings of EPI
http://www.lembarque.com/prove-run-partenaire-securite-de-linitiative-epi-qui-vise-a-concevoir-un-processeur-europeen-ultrapuissant_008767	Lembarque	Prove & Run security partner of the EPI initiative that aims to design an ultra-powerful European	On P&R's participation in EPI

Link	Source	Title	Description
		processor	
https://www.industrie-techno.com/article/supercalcul-l-europe-passe-a-l-offensive.56410	Industrie Techno	Supercomputing: Europe goes on the offensive	Mariya Gabriel, the former European Commissioner for the Society and Digital Economy, on the need for European developments in supercomputing – only 2 European supercomputers are now ranked in the first 10 globally. This will be achieved through EuroHPC, and EPI.
https://www.nextplatform.com/2019/06/10/europes-homegrown-hpc-compute-begins-to-take-shape/	The Next Platform	Europe's Homegrown HPC Compute Begins To Take Shape	Detailed look of EPI's roadmap as well as quotes from Philippe Notton and Jean-Marc Denis.
https://www.nextplatform.com/2019/06/04/maintaining-europes-edge-in-supercomputing-software/	The Next Platform	Maintaining Europe's Edge in Supercomputing Software	Discussion on Tier-0 HPC user and a link to EPI article
https://www.hpcwire.com/2019/06/17/nvidia-recommits-to-arm-seeks-to-accelerate-all-cpu-architectures/	HPCwire	Nvidia Embraces Arm, Declares Intent to Accelerate All CPU Architectures	On NVIDIA's plans, with reference to EuroHPC and EPI's ties with Arm
https://www.lemagit.fr/actualites/252465435/LUE-developpe-son-propre-processeur-pour-atteindre-lExascale	LeMagIT	EU develops its own processor to reach Exascale	Coverage from ISC and EPI's attendance there – speculations on using RISC-V and Arm
https://www.nextplatform.com/2019/06/18/europe-will-enter-pre-exascale-realm-with-marenostrum-5/	The Next Platform	Europe Will Enter Pre-Exascale Realm With MareNostrum 5	On BSC0s hosting the first pre-exascale supercomputer and how EPI fits into this

http://architecnologia.es/risc-v-el-nuevo-chip-europeo-rhea-y-primer-fruto-de-epi	ArchTecnologia	RISC-V: Rhea the first European microprocessor fruit of EPI	In-depth look on EPI's usage of RISC-V ISA
https://insidehpc.com/2019/08/how-the-european-processor-initiative-is-leveraging-risc-v-for-the-future-of-supercomputing/	InsideHPC	How the European Processor Initiative is Leveraging RISC-V for the Future of Supercomputing	Blog post written in cooperation with RISC-V foundation to introduce EPI's usage of RISC-V
https://www.latribune.fr/entreprises-finance/industrie/aeronautique-defense/j-ai-trouve-des-pepites-beaucoup-de-pepites-emmanuel-chiva-agence-innovation-defense-827710.html	La Tribune	"I found nuggets! Many nuggets" (Emmanuel Chiva, Defense Innovation Agency)	Director of French of the Agency for Defense Innovation mentions EPI in the context of monitoring French AI development
https://www.hpcwire.com/2019/09/19/the-european-processor-initiatives-ambitious-vision-of-the-future/	HPCwire	The European Processor Initiative's Ambitious Vision of the Future	Coverage of Jean-Marc Denis' talk at the HPC User Forum in Chicago
https://elpais.com/tecnologia/2019/06/10/actualidad/1560150491_493847.html?rel=mas	El Pais	Barcelona will promote the design of a European supercomputing processor	BSC participation in EPI and EPI development
https://insidehpc.com/2019/09/an-update-on-the-european-processor-initiative/	InsideHPC	An Update on the European Processor Initiative	Coverage of Jean-Marc Denis' speech at HPC User Forum
https://cordis.europa.eu/article/id/410197-made-in-europe-taking-a-major-step-towards-building-supercomputers/en	CORDIS	Made in Europe: Taking a major step towards building	CORDIS coverage in several languages, on EPI and its advancements - indigenous chip

		supercomputers	technology for high-performance computing (HPC), artificial intelligence (AI) and automotive engineering
https://www.nextplatform.com/2019/10/16/europeans-add-3d-integration-to-exascale-technology-stack/	The Next Platform	Europeans Add 3D Integration To Exascale Technology Stack	On ExaNoDe project, with a final paragraph on EPI and how the results will be used
http://www.senat.fr/rap/r19-007-1/r19-007-19.html	Senate France		Highest level political consideration in France
Goteborg press – physical copy (also at https://www.gp.se/ekonomi/chalmers-med-och-utvecklar-v%C3%A4rldens-snabbaste-dator-1.15834640)	Göteborgsposten	Chalmers contributes and develops the world's fastest computer	Sweden and Chalmers is part of the EPI project and explains why HPC is very important to Europe and how important the EPI project is as for Europe to take a lead in that.
L'informaticien Juin 2019 pdf	L'informaticien	Supercalculateurs L'Europe contre-attaque	EuroHPC and EPI initiative to help bring European sovereignty in HPC

3.4 Scientific Publications

At the moment of submission of this deliverable, one book chapter has been published, while several papers and conference proceedings contributions have been accepted for publication.

Table 5. Publication list

Publication	Title	Link, DOI	Key message
Electronic Components and Systems for Automotive Applications	Chapter: European Processor Initiative (EPI)—An Approach for a Future Automotive eHPC Semiconductor Platform	https://doi.org/10.1007/978-3-030-14156-1_15	The need for automotive eHPC is immediate. L4 and L5 autonomous cars need extensive processing capabilities to arrive at target functionalities. EPI approach is well aligned with this.
Conference proceedings from the WCX SAE World Congress Experience	High Performance Processor Architecture for Automotive Large Scaled Integrated Systems within the European Processor Initiative Research Project	https://doi.org/10.4271/2019-01-0118	Paper tackling autonomous driving systems and connected mobility, which are the next big developments for the car manufacturers and their suppliers during the next decade. To achieve the high computing power needs and fulfil new upcoming requirements due to functional safety and security, heterogeneous processor architectures with a mixture of different core architectures and hardware accelerators are necessary. To tackle this new type of hardware complexity and nevertheless stay within monetary constraints, high performance computers, inspired by state-of-the-art data center hardware, could be adapted in order to fulfil automotive quality requirements. EPI tries to come along with that challenge for next generation semiconductors.

Accepted for publication:

- A Fast Approximation of the Hyperbolic Tangent when Using Posit Numbers and its Application to Deep Neural Networks, Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, Sergio Saponara, ApplePies conference

- An Area Effcient and Reusable HEVC 1D-DCT Hardware Accelerator, Mate Cobrnic, Alen Duspara, Leon Dragic, Igor Piljic, Hrvoje Mlinaric, Mario Kovac, Parallel Processing and Applied Mathematics 13th International Conference, PPAM 2019, Bialystok, Poland, September 8-11, 2019

"HPC Accelerators and Processors Session" on EPI at the 26th IEEE ICECS conference in Genova, 5 papers presented:

- The Floating Point Trinity: a Multi-Modal Approach to Extreme Energy-Efficiency and Performance, Florian Zaruba, Fabian Schuiki, Stefan Mach, Luca Benini
- A PULP-Based Parallel Power Controller for Future Exascale Systems, Andrea Bartolini, Davide Rossi, Antonio Mastrandrea, Christian Conficoni, Simone Benatti, Andrea Tilli, Luca Benini
- Crypto Accelerators for Power-Efficient and Real-Time on-Chip Implementation of Secure Algorithms, Luca Baldanzi, Luca Crocetti, Stefano Di Matteo, Luca Fanucci, Sergio Saponara, Patrice Hameau
- Novel Arithmetics to Accelerate Machine Learning Classifiers in Autonomous Driving Applications, Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, Sergio Saponara
- Using Hypervisor Technology for Safe and Secure Deployment of High-Performance Multicore Platforms in Future Vehicles, Kai Lampka, Adam Lackorzynski

3.5 Website and Social Media

EPI's website and social media were set up as the main vehicles of communication to the outside: used as a platform to explain the project goals, mission, vision, streams of the project, present consortium partners and eventually, present project results.
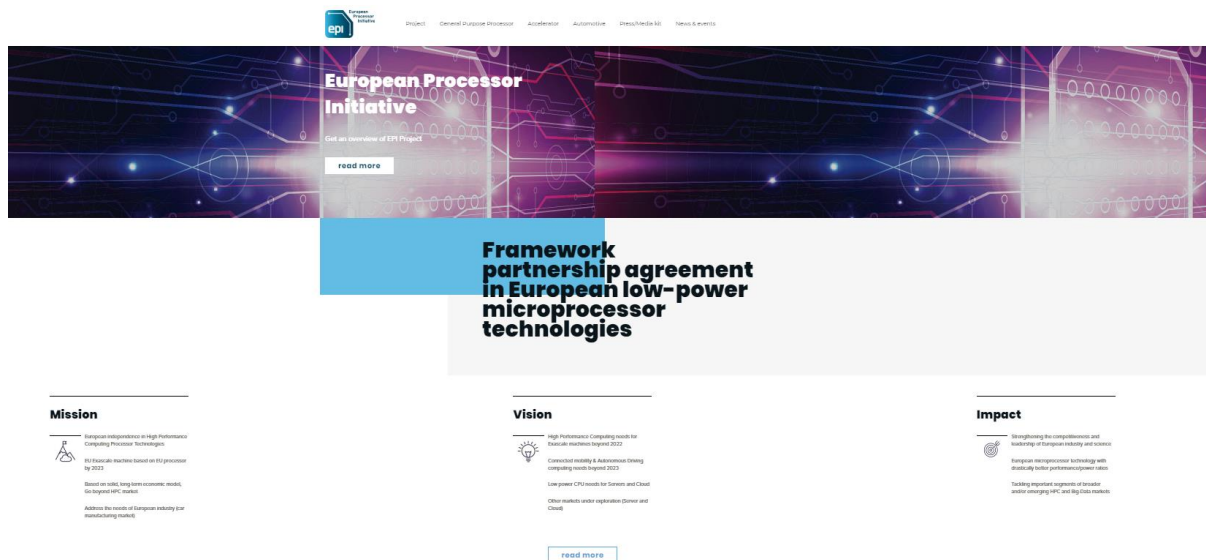

Figure 2. EPI project website homepage
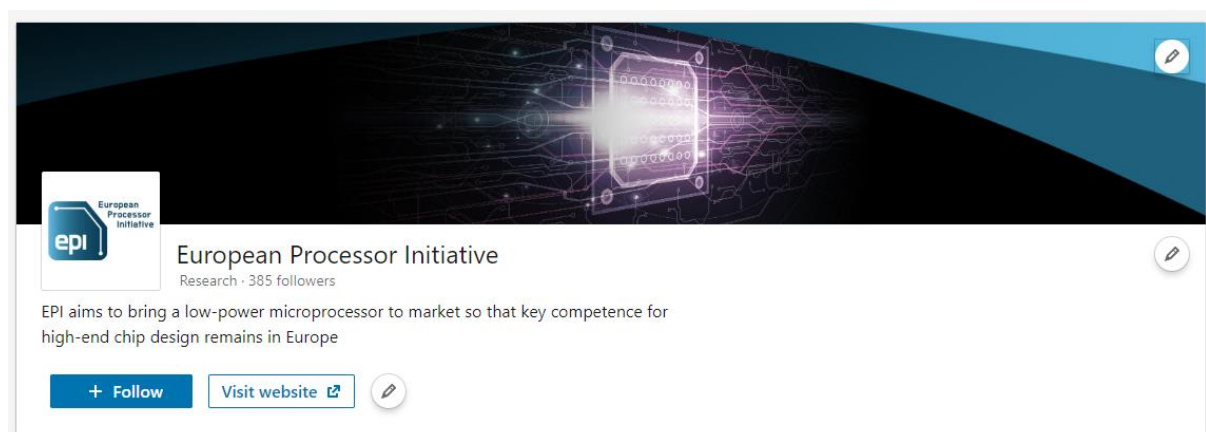
Figure 3. EPI LinkedIn Page

Figure 4. EPI Twitter profile
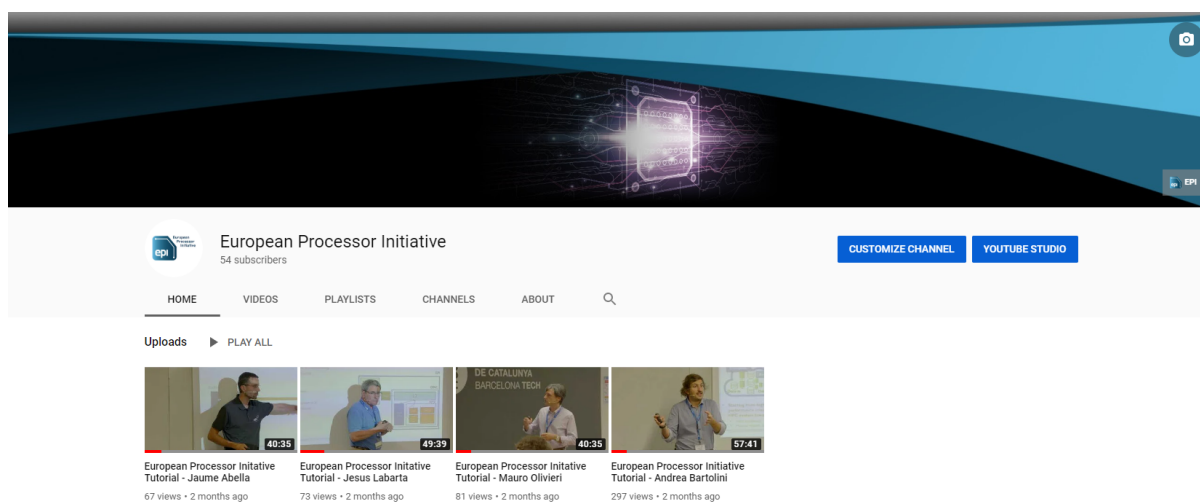
Figure 5. EPI YouTube channel

3.5.1 EPI Website and Analytics

The structure of the website was designed to align with the project's communication needs. The main menu allows users to navigate information about the project generally (which lists information on EPI, the Consortium members, main contacts from EPI's Board and management and the Dissemination and Communication Press repository), followed by main menu sections on General Purpose Processor, Accelerator and Automotive – representing the three major streams of operation in EPI, and then the Press/media kit and News and events section.

The three items in the main menu corresponding to streams of operations – General Purpose Processor, Accelerator and Automotive – will, as the project progresses and results become available, provide more details in each respective area.

Under the Project menu, the Dissemination and Communication Press repository archives DC materials with the possibility of filtering according to authors, year, type of material created and keywords.

Press/Media kit part in the main menu of the website was specifically designed for members of the media, in order to provide easy access to information. This repository sets out the most important material a reporter could need when covering EPI.

Two important sections of the website are News and events.

The News section of the website is a mixture of social media feed (Twitter) and blog-type summary articles from EPI attendance at events and announcements for future plans. As the project progresses, and the results become known, consortium partners may decide not only to announce their attendance at events, but present interesting topics in the HPC, automotive, edge, AI, accelerator or any other domain they find relatable to EPI results and scope of work.

This type of content should drive more traffic to the website and raise engagement within the expert community (both industry and academic experts, and most notably, HPC writers/influencers who could see this as an opportunity to engage EPI in their coverage).

The events calendar lists planned public communication and dissemination activities of EPI members, while, going back, all events in the past are noted and linked to the Dissemination and Communication Press repository, for anyone to get access to materials from past events, if available.
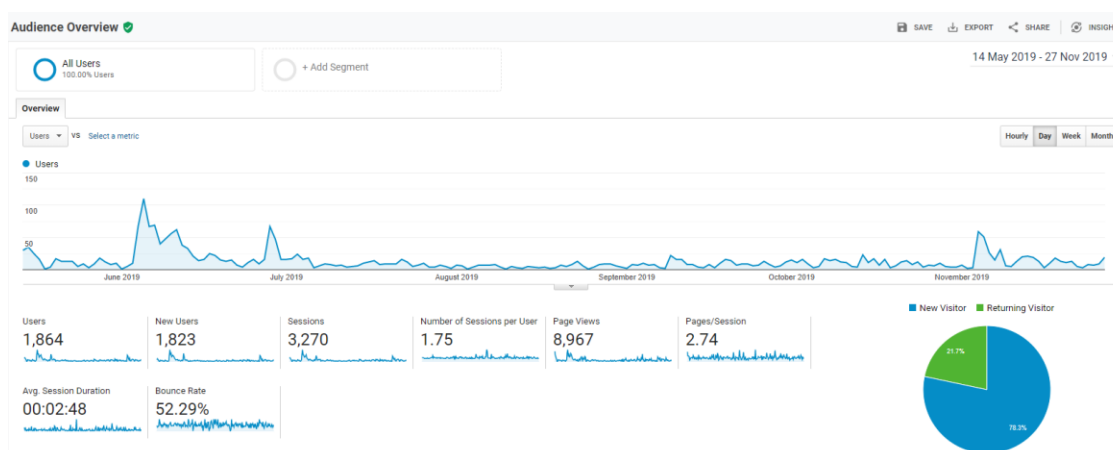
Figure 6. Audience overview for the period M6-M11

Audience overview for the period since the launch of the website up until the final preparation of this deliverable (in M12) shows that there have been 1864 total users of the website (ones who have initiated at least one session with the website).

The peaks with a slightly higher number of visits in June, July and November correspond to dates of publication of the two press releases (June 4, November 4, 2019) and the opening of the registration for the first EPI Tutorial in Barcelona in July.

3.5.2 EPI Social Media

EPI's social media channels' objectives were aimed at raising awareness among the community about EPI's efforts and posting information about key events and news in the consortium. The channels were also set up to promote engagement in the community, in order to get visibility as a new player in the race to exascale. They are also an important vehicle of driving more traffic to the project's website.

Social media channels have been prioritized with EPI's target audiences in mind, to maximize the effectiveness of communication efforts. Thus, it was decided to actively pursue EPI presence on Twitter, LinkedIn and YouTube, bearing in mind the content we could provide as a consortium and the target audience in mind (academy, industrial sectors – HPC, automotive, AI, edge, technology providers, professionals, young researchers, and other exascale initiatives).

3.5.2.1 Twitter

Twitter was chosen for its *instant-now-tweet* quality, for making the outreach towards the communities that would otherwise not be instantly aware of EPI or would not be in the position to directly approach EPI. This means we used the opportunity to tweet from any major event we attended, inviting people to join our presentations, discussions or most notably, come to our booths if we had one. Even though project results may be confidential, which can sometimes stymie communication to the public, social media has proven to be an effective vehicle to get various communities talking about EPI and with EPI. Also, it allows for direct two-way communication with anyone who wants to approach EPI, which is a great opportunity to be as transparent and accessible as possible.

The numbers for Twitter following are considered a success, seeing that the account has only been live for 7 months and there was no boosting of posts, so all traffic is purely organic.

Table 6. Twitter summary M5-M12

Month	Tweets	Retweets	Tweet impressions	Profile visits	Mentions	New followers
April	8	16	6,122	211	6	79
May	24	72	28,800	582	32	83
June	21	71	44,700	899	53	170
July	14	36	30,000	241	17	41
August	2	9	9,313	100	9	31
September [1]	4	20	13,000	112	10	27
October	8	26	19,000	224	5	47
November	10	46	10,164	330	32	56

Overall number of followers in the moment of writing this deliverable (M12) is 545, with 114 tweets.

Total insights in the moment of writing this deliverable (M12) is as follows:

---

[1] Some numbers are in discrepancy with overall insights – possibly due to Twitter's notification about a service outage in September

Table 7. Twitter insights M5-M12

Impressions total	Engagements sum	Total retweets	Total likes	Total URL clicks
165,569	3986	296	636	696

3.5.2.2 LinkedIn

LinkedIn was set up as an obvious choice for an initiative like EPI – a social media network filled with professionals in the field and reporters interested in covering it. It is used to relay important discussions and media coverage on HPC approaches, but also, to drive traffic towards the website and its news section. Another important feature of LinkedIn for EPI is posting job vacancies in the consortium members for EPI, especially young researchers (postdoctoral positions or PhDs). There were no boosted posts but following is growing steadily and posts get considerable traction.

Visitor Metrics for page views and job function (Figure 7 and 8) show that the interest peaked at the publication of the first press release, which was also published on LinkedIn), and that top three interest of visitors are, as is to be expected, Engineering, Research and Business Development.
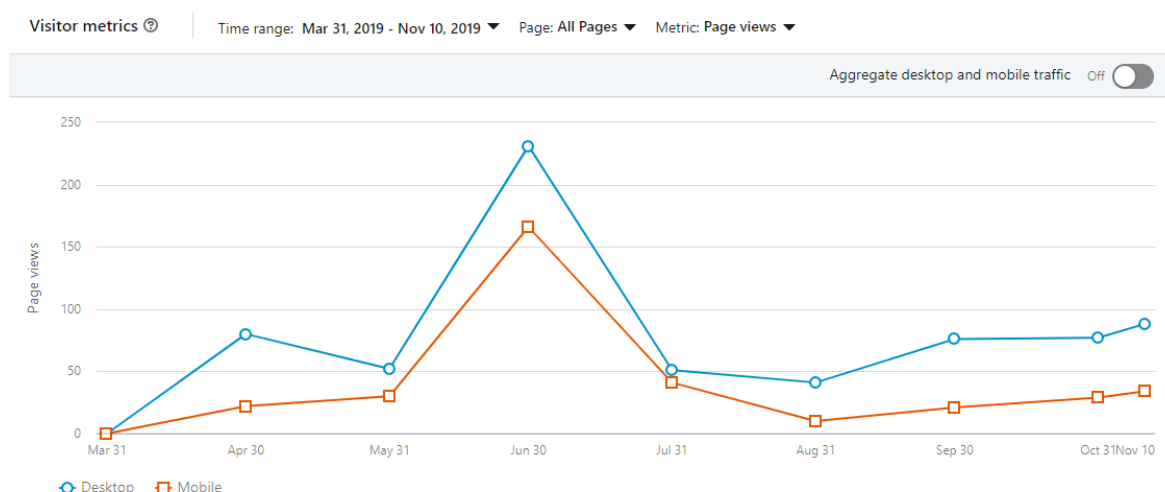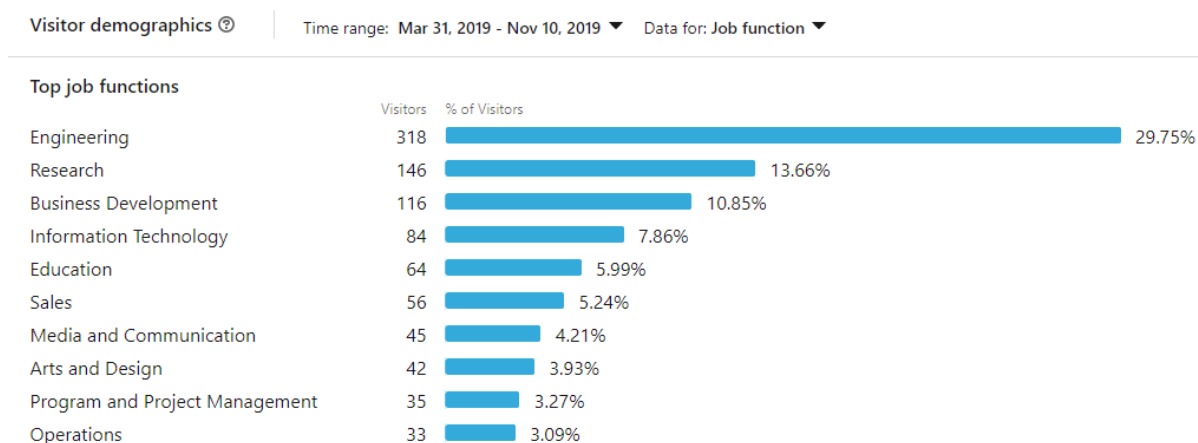

Figure 7. Visitor metrics on LinkedIn - page views

Figure 8. Visitor demographics on LinkedIn - top job functions

Follower Metrics show the highest number of new followers was attracted (Figure 9), same as in Twitter's case, at the dates of publication of EPI's press releases (June 4 and November 4, 2019). This is expected, but also a pointer for the way ahead in EPI communications – the community is interested in news from EPI and the right balance between the need for confidentiality and the transparency of communication needs to be struck.
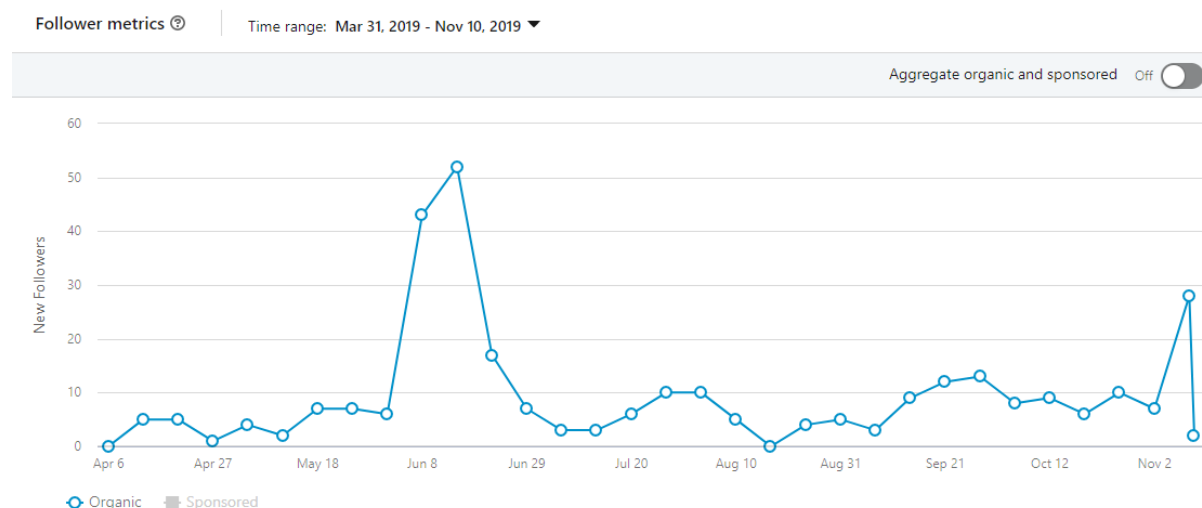

Figure 9. Follower metrics on LinkedIn - New Followers

Follower demographics (Figure 10) show correspondence to Visitors. Top three job functions are again Engineering, Research and Business Development, while Industry segment is Research, Information Technology and Services and Semiconductors (Figure 11).
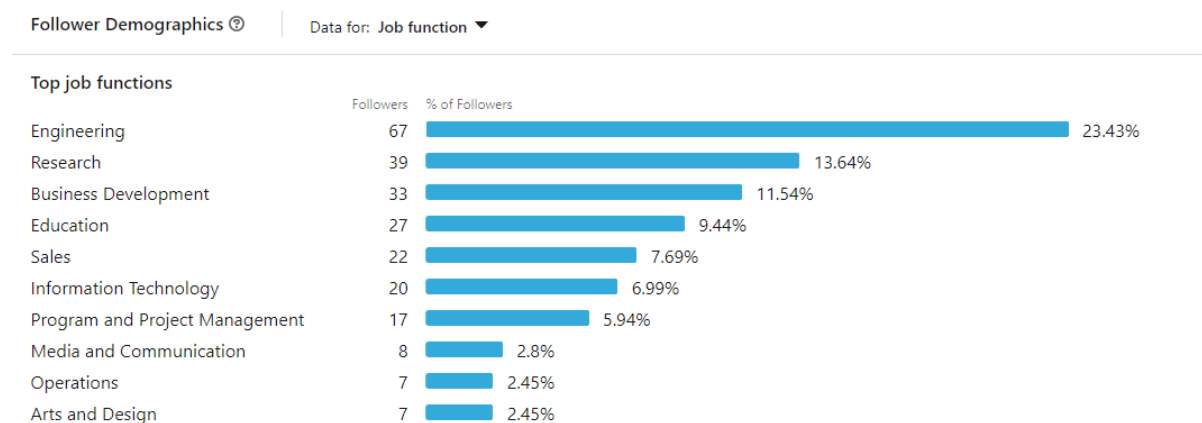

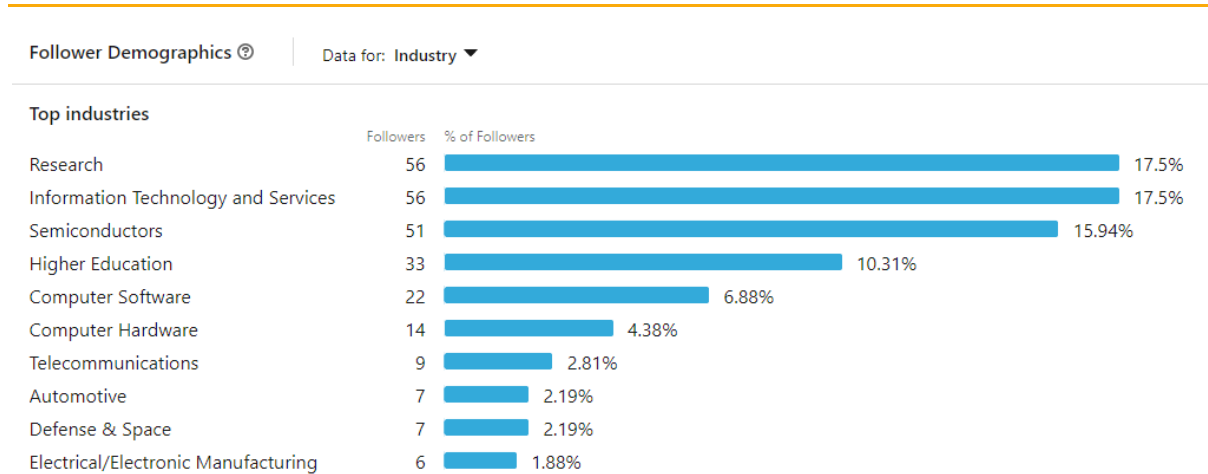**Figure 10. Follower Demographics on LinkedIn - Job function**

Figure 11. Follower Demographics on LinkedIn - Industry

3.5.2.3 YouTube

YouTube allows EPI to make its content visible to a large audience. Two main streams of operation for now are linking EPI members' speeches, presentations and videos from other sources (where EPI is not the content owner) separately listed in a playlist and making our own materials available. The latter is very important because EPI has used YouTube to post videos from its first tutorial in Barcelona and it was covered in full, so as to make it as accessible as possible to a wide viewership.

The main result can be summed up with Figure 12, 54 subscribers to our channel, and view numbers for our four own videos:
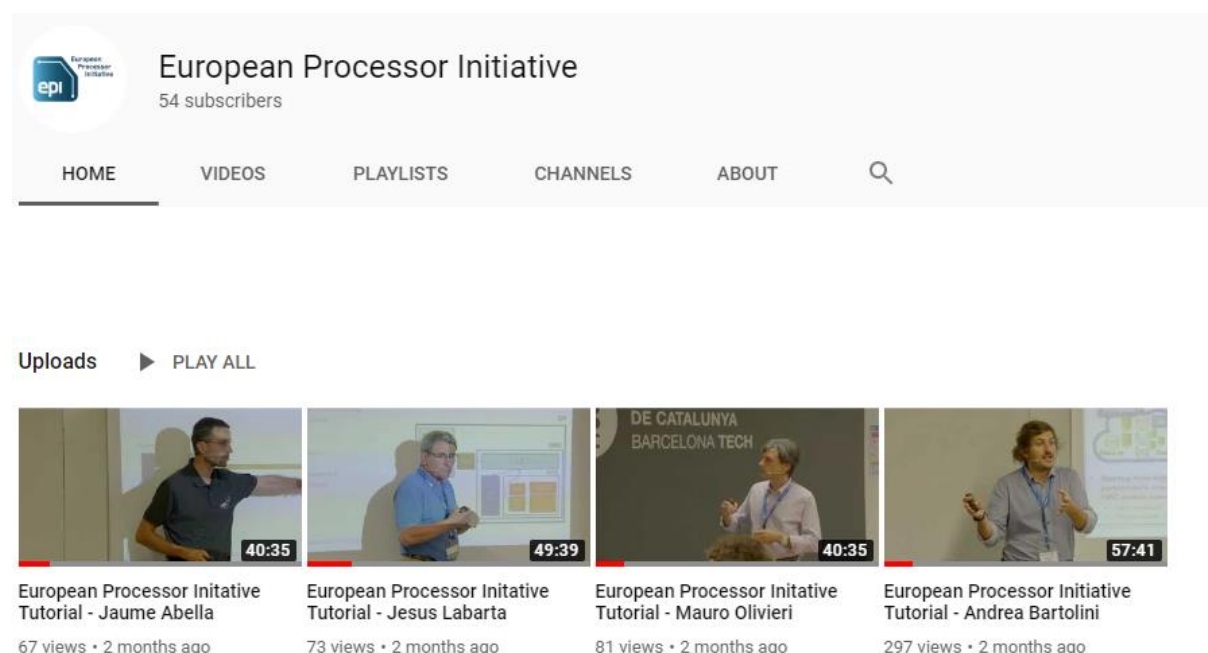

Figure 12. Views on four EPI videos on YT at M12

4 Conclusion and Future Plans

The Working Group in WP24 and the WPL have, according to the EPI SGA1 and subsequently D24.1 Plan, directed the efforts in DC towards creating awareness about the Initiative in the first year of the project. This means the consortium has participated in 60 events, gave interviews to the press, submitted initial scientific papers and in other forms promoted the project.

All of these activities have been underlined with the developed visual identity for EPI and online communication channels (website, social media). The channels are also used widely to share the limited content that doesn't fall under confidentiality clauses of the project and to engage expert public in discussions regarding EPI and its future plans. Those channels undergo constant improvements, like adding materials in the Press/Media kit to facilitate the process of informing the media and improving content upload with coverage from events' participation.

As the project work progresses, future plans for EPI communication include more focus towards **dissemination for understanding**, the second stage of DC plans, where EPI concepts, technologies and advancements will be brought closer to the public – through factsheets, white papers, papers submissions in journals, while long-run plans (that will be reported in the subsequent iterations of this Deliverable – D24.3 and D24.4) will include dissemination of results and more hands-on trainings for involving the HPC ecosystem in Europe.