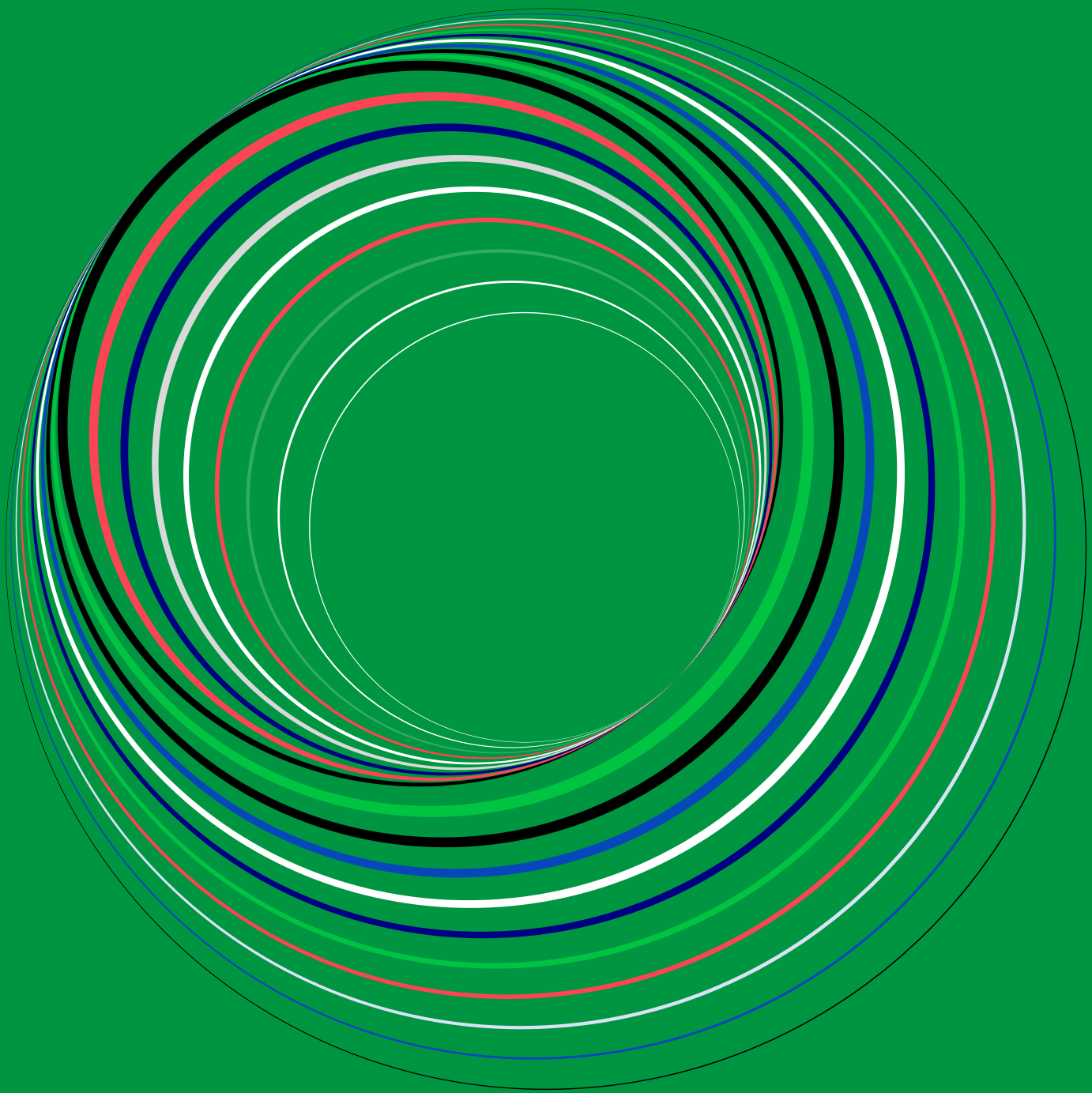
# ITEA
# Annual report 2022



ITEA 4

eureka

ITEA is the Eureka Cluster
on software innovation


*The Quality Management System of ITEA Office is ISO 9001:2015 certified.*

# Contents

**About ITEA** 04

**Message from our Chairwoman** 05

**1 / Achievements and improvement priorities** 07

1.1 ITEA project impact 07
1.2 Results of the 2022 ITEA improvement priorities 11
1.3 ITEA improvement priorities 2023 13

**2 / Positioning and ECP activities** 15

2.1 Positioning of Eureka, the ECP and ITEA 15
2.2 ECP bodies 16
2.3 ECP activities 17

**3 / Calls overview** 19

3.1 ITEA programme size 19
3.2 Calls progress 20
3.3 Project landscape 22
3.4 New projects - ITEA Call 2021 23
3.5 New projects - Eureka Clusters Sustainability Call 2022 28

**4 / ITEA activities and events** 31

4.2 ITEA customer orientation 31
4.3 ITEA events 31
4.4 ITEA stakeholder satisfaction surveys 37
4.5 ITEA media coverage 38

**Appendix A.** Call statistics per year and per country 39

**Appendix B.** How to access the online data 41

**Glossary of terms** 42

# About ITEA

ITEA is the Eureka Cluster on software innovation and digital transition, enabling a strong international RD&I community of large industry, SMEs, research institutes, academia and user organisations to collaborate in funded research and innovation projects that turn ideas into new businesses, jobs, economic growth and benefits for society. ITEA is industry-driven and covers a wide range of innovation areas and business opportunities facilitated by digitisation, such as smart mobility, healthcare, smart cities, energy, manufacturing, engineering and safety & security. ITEA pushes important technology fields like artificial intelligence, big data, digital twin, distributed cloud and high-performance computing into concrete business applications.

## Our vision

In a rapidly changing society where challenges are omnipresent, digitisation is no longer an option to resolve any economic or societal issue. It should instead be regarded as an opportunity to create innovative solutions. Digital technology will be applied in all aspects of society, touching every element of people's lives. Software innovation is a core component for mastering this Digital Transition and this is the main focus of ITEA.

Digital Transition is not a one-step process. It has many dimensions in which development must be continuous. The more that digitisation is enabled, the more pervasive the transition becomes. To achieve this continuous process in a smooth way, a fertile and collaborative environment and a bottom-up approach are needed in which there are innovative ideas and knowledgeable people who are eager to share, inspire and be inspired by each other.

## Our mission

It is ITEA's mission to enable businesses, with the involvement of their customers, to create innovative solutions that master the Digital Transition and tackle the major challenges in a way that helps bring society forward. ITEA encourages its global Community to create impact and value through RD&I projects in the area of software innovation using the knowledge of industry and the capabilities of national financing.

ITEA is:

- **Global and trusted cooperation in an industrial community**
  ITEA stimulates innovation projects in a global community of large industry, small and medium-sized enterprises (SMEs), start-ups, academia and customer organisations. ITEA's bottom-up project creation ensures that project ideas are industry-driven and based on actual customer needs. ITEA provides a trusted framework for cooperation in which standard project collaboration agreements are available, including in the complex domains of confidentiality and intellectual property. ITEA is managed by and for industry in close cooperation with national Public Authorities (PAs).
- **Project financing through national public and private funding**
  The ITEA programme is publicly funded at a national level. Each ITEA project partner can apply for funding from their own national Public Authority. An early dialogue between project consortia and Public Authorities supports alignment with national priorities and the best possible opportunities for funding, leading to higher success rates.
- **Commercialisation of research results**
  ITEA enables organisations to create actual commercial results from innovation projects. Impact is one of the core values in ITEA: impact on business, the economy and society. Impact is central during the project lifecycle: proposal evaluation, monitoring, closure and the communication of results.
- **Focus on high-quality processes and support**
  ITEA follows a flexible and supportive coaching approach towards its project consortia in order for them to maximise the results of their efforts and their project's impact. Each year, ITEA issues a bottom-up Call for projects, starting with a brokerage event. Each Call follows a two-step procedure in which industrial experts evaluate the quality of the project proposal in terms of innovation, impact and the consortium. In addition, ITEA participates in the Joint Eureka Clusters Calls and their preparations when the topic is relevant. During the project lifetime, ITEA provides full-cycle project monitoring in a peer-to-peer mode with digital reports and (physical) reviews to improve the quality and value creation of projects. ITEA also has an ISO 9001-certified Quality Management System (by DEKRA).

# Message from our Chairwoman

ITEA has a strong innovation Community to foster software innovation and digital transition. This Community is led by industry and supported by national Public Authorities to build up innovative RD&I projects via international collaboration. 25 years ago, ITEA was established on the basis of trust between industry and Public Authorities with a bottom-up model that creates a free zone for software innovation and economic and societal impact for countries, companies, organisations and people. And since then, ITEA projects have proven the value of this trust by achieving impactful results.

In this report, you can find these impactful results in the four Impact stories that were published in 2022. In these stories, you will find global standards, increased human resources, training for new innovative methods and game-changing products, services and processes that were built by the ITEA Community via ITEA projects. Some highlights:

- A platform developed in PS-CRIMSON that serves as a single entry point for city representatives, allowing them to take a virtual walk through a 3D model of the city and see everything which is happening in a single view.
- Kiswe has increased its human capacity to over 70 FTE globally since their participation in the MOS2S project and was named one of the World's Most Innovative Companies by Fast Company in 2021.
- Through the results of the SPEAR project, energy costs have been reduced by roughly 10% thanks to the smart selection of energy sources, the smart adaptation of process-relevant parameters and the reduction of power peaks.
- The APPSTACLE project developed the KUKSA platform, which unifies technologies across the vehicle, IoT, cloud and security domains to provide an open-source ecosystem to developers which addresses the challenges of the electrified and connected vehicle era.

As a Eureka Cluster, ITEA is bottom-up, market-oriented and result-driven. Therefore, we focus on the urgent needs of end-users and customers to ensure that ITEA projects create impactful solutions for real economic and societal challenges. In 2022, to build a bridge between the ITEA Innovation Community and end-users, ITEA hosted events like a webinar on Smart Systems Engineering, the ITEA Smart Health customer workshop and the ITEA Smart City Advisory Board and ITEA Cyber Security Advisory Board meetings, during which innovative project ideas were created and the solutions and benefits of ITEA projects were presented to end-users.

In 2022, ITEA co-led the first ECP Joint Call on Sustainability with Xecs. The Call led to 11 labelled projects, of which ITEA was involved in eight. In four projects, ITEA has been selected as the main Cluster and, in four other projects, ITEA

was selected as the supportive secondary Cluster. Although the average project size in this Joint Call is smaller than the ones in ITEA's bottom-up Calls, it has brought new participants to the ITEA Community, which is of great value.

For ITEA Call 2022, the ITEA Community gathered at the ITEA PO Days 2022 in Helsinki with ambition and passion. During a dedicated ITEA family reunion, we celebrated the fact that we were able to gather again physically. The ITEA PO Days, supported by Public Authorities with their valuable presence, created a set of strong ITEA projects. During this event, we also received the first signals of UK funding for ITEA projects, which topped up the happiness in ITEA.

Another factor we look at for our happiness is the Call sizes of the ITEA Calls. Although the Call size of ITEA 3 Call 7 has the potential to be larger than Call 6, it still needs to be improved in order to reach the targeted KPI of ITEA that was set and approved by industry and Public Authorities.

The contextual and environmental conditions around ITEA are changing continuously because of the pandemic or the national priorities of countries and the focus of our Community. To stay impactful, a continuous change is also necessary in the ITEA programme. These changes in ITEA are always backed up by our stakeholders' feedback as this is the only way to keep the quality of service that is provided to the ITEA Community and Public Authorities in line with their expectations and needs.

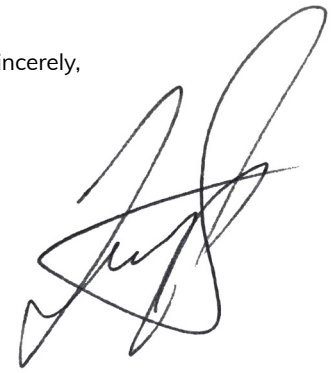
To keep the quality of the ITEA programme at the level that may be expected from ITEA in 2023, a set of targets for this upcoming year has been set, for example:

- Maintaining/preserving ITEA bottom-up Calls in the ECP.
- Increasing knowledge and awareness of ITEA, its projects and their impact towards stakeholders.
- Mobilising new income sources and funding opportunities.
- Continued efforts (including KPIs) on getting the overall ITEA Call size back towards at least €120 M.
- Participating in the ECP Groups that govern the ECP execution.
- Continuing customer orientation.

All these targets and their corresponding KPIs are challenging, but if we shake hands across the ITEA Community and the ITEA Public Authorities to support each other for positive impact, there is nothing that will prevent ITEA from becoming stronger and moving towards a better future that we build together.

Have a nice read.

Sincerely,



Zeynep Sarılar
ITEA Chairwoman

# 1 / Achievements and improvement priorities

Through the ITEA innovation programme, ITEA projects are always looking for improvement of the current State-of-the-Art, such as in production processes, the alignment of information streams and energy optimisation. Via a supportive coaching approach, ITEA helps partners to get the most out of their project participation. In line with this, the ITEA programme also continuously evaluates its own processes and activities and annually defines improvement priorities to enhance itself.

In this report, we take you through our 2022 activities, achievements and the impact of the ITEA programme.

## 1.1 ITEA project impact

In ITEA, achievements and impact are created in a trusted environment and this trust has been felt by ITEA's Community and Public Authorities for 25 years now. In turn, the achievements and the commitment of the ITEA Community justify and reinforce this trust.

Each year, remarkable results are delivered through bottom-up ITEA projects, and an impressive impact on society, the economy and everyday life was again created in 2022 by the ITEA project partners with the support of the national Public Authorities. As impact is one of ITEA's main ambitions, we have been gathering remarkable project Impact stories since 2017, and a total of 36 stories have already been published.

Hereafter, you can discover the highlights of four outstanding projects that have recently been added to the long list of ITEA Impact stories. The full (overview of) Impact stories can be found online via https://itea4.org/impact-stream.html. There, you can also create your own personal ITEA Impact stream online by choosing the challenges, countries and topics of your interest.

## PS-CRIMSON Impact story

Nowadays, cities are digitalising more and more services, like data gathering for mobility, safety and communication with citizens. This data is required to be able to govern an increasingly complex and dynamic city. However, authorities still need to tackle information fragmentation caused by separated data per department and a lack of common platforms and toolsets. PS-CRIMSON developed a unique 3D smart digital model that combines all of the gathered data on one common platform. With this platform, public safety and disaster management can be improved, as pilot projects in Eindhoven and Vancouver have shown.

Impact highlights:

- Thanks to PS-CRIMSON, a city representative responsible for video surveillance can now work with one single screen and take a virtual walk through a 3D model of the city and see everything which is happening in a single view. This facilitates his/her work a lot compared to the previous situation where (s)he needed to monitor up to 60 live screens in the control room and handle dozens of calls during the day from local citizens and officers regarding suspicious events.
- Thanks to AI image technology developed by project partner Eindhoven University of Technology, the search engine can determine where an incident is taking place to an accuracy of 10 meters when someone sends a mobile picture to the police.
- Thanks to the 3D smart model of Esri Canada, developed within PS-CRIMSON, city representatives can now see the effects of an earthquake down to the level of interior units in the damaged buildings and the different levels of flooding that would follow.
- PS-CRIMSON project partners won a tender for Smart City Hilversum, which is now being deployed to create insights on traffic.
- ViNotion has sold PS-CRIMSON results to other cities, including Amsterdam, 's-Hertogenbosch and Bruges.
- Atos is in the lead for a smart city project in Germany.

## MOS2S Impact story

Traditional media is losing ground to personalised experiences. Children of today choose what to watch at the time they want and they even produce thousands of pieces of content on their own each day. This trend in the entertainment business can also be seen in society, where city representatives no longer make decisions on their own. Everybody wants to be involved, or at least can be. The MOS2S project took the outdated broadcasting concept to the next level, adding a completely different dimension with features such as instant live broadcasting with the aim of capturing as much sensor data as possible and using this data in various applications in order to eventually enhance the experiences of people.

Impact highlights:

- Thanks to MOS2S, for the first time in the world, a football match in the Johan Cruijff ArenA was broadcast in real time with only a 0.3-second delay from the pitch in Amsterdam to a viewing area in South Korea. Combining new Ultra-Wide Vision technology with a super-fast data connection enabled a crowd of South Koreans to experience the live event in an unmatched way.

- As the first stadium in the world to adopt the innovative technologies developed in the MOS2S project, the Johan Cruijff ArenA is boosting its reputation for innovation and opening up a new consultancy market, in turn making the technology accessible to new and existing sports hubs.
- Since the MOS2S project, Kiswe has been working with multiple sports leagues and entertainment and media companies worldwide, like K-pop group BTS, NBA, Universal Music Group and the Tour of Flanders to name a few. In 2021, Kiswe was named one of the World's Most Innovative Companies by Fast Company and the company has grown by more than 70 FTE worldwide since their participation in the MOS2S project.
- Game On's video technology has been licensed to 25 European clubs with a revenue of almost EUR 700 thousand for GameOn in 2019 (versus roughly EUR 80 thousand in 2016).
- The Inmotio Performance Centre is being rolled out for all 18 teams of the Dutch Eredivisie, potentially leading to millions of users following completion.

## SPEAR Impact story

By helping companies to optimise their energy usage, SPEAR enables them to manage resources more effectively, reduce their energy consumption and costs significantly and increase their productivity in a sustainable manner. To achieve this, SPEAR used real device-provided simulation models to produce highly accurate forecasts for the energy consumption of industrial production processes, developed optimisation algorithms and created a flexible and highly generic optimisation platform.

Impact highlights:

- The SPEAR project allows for a greater uptake of renewable energies (such as solar and wind), which were previously difficult to optimise on a large scale due to their weather dependency. This gives SPEAR a vital role in reducing CO2 emissions and slowing the speed of climate change throughout society as a whole.
- Through the smart selection of energy sources, the smart adaptation of process-relevant parameters and the reduction of power peaks, SPEAR has been able to reduce energy costs by roughly 10%.
- The SPEAR project outcomes have provided ÅF with a unique selling point for its service over other competitors, allowing them to receive more orders, which in turn increases the value of their turnover.
- Thanks to the developments in SPEAR, Sensing & Control Systems has three new industrial customers and was able to hire one additional staff member. Sensing & Control Systems has also incorporated the Functional Mock-up Interface (FMI) industrial standard, which increased their reliability and reputation.
- For Reeb-Engineering, the knowledge gained in SPEAR has opened up a completely new field of work in virtual commissioning for a wide range of industrial applications and thus a new business area that is becoming increasingly popular. After the completion of the project, they hired one new employee.
- Thanks to its great achievements, SPEAR received the Eureka Innovation Award for Best Sustainability Innovation during the 2022 Eureka Global Innovation Summit.

## APPSTACLE Impact story

In the automotive domain, there is an increasing demand for software related to services. Although high-end cars now contain hundreds of millions of lines of code, development takes place in silos. To meet consumer needs at this high level of complexity while avoiding 'walled' proprietary solutions from a few monopoly players, a secure, open car-to-cloud and cloud-to-car platform is needed. APPSTACLE has created such a platform, connecting cars and transportation vehicles to the cloud using hybrid communication technologies for V2X (vehicle-to-everything) communication. Eclipse facilities have been used to build an open ecosystem in which security, privacy and identity requirements can be met, allowing the platform to be used in a wide range of vehicles.

Impact highlights:

- In November 2019, APPSTACLE launched the first release of the Eclipse KUKSA platform that unifies the technologies across the vehicle, IoT, cloud and security domains to provide an open-source ecosystem to developers which addresses the challenges of the electrified and connected vehicle era.
- KUKSA shows large companies that there is more to be gained from sharing data than from protecting it within proprietary solutions. As more vehicles become connected, more applications and services will emerge. Companies can therefore enhance the business domain while increasing the size of their own share.
- In the research and education domain, KUKSA is currently shaping itself towards a de facto mobility research platform for managing data around data-intensive transport, smart mobility and vehicle, driver & passenger use-cases.
- APPSTACLE has so far played a role in 10 Master's of Science and 14 PhDs across Europe. KUKSA also has an important role as a platform for live demonstrations and university student exercises around software-defined vehicle concepts and technologies around cloud & edge computing and continuous/secure software deployments in the automotive domain.
- Ericsson has been using the knowledge and connections resulting from APPSTACLE for their software R&D transformation to open-source software. A separate Ericsson-owned open-source software development company has been established in Finland, which is one of their first subsidiaries.

## 1.2 Results of the 2022 ITEA improvement priorities

As part of our annual quality process, several important improvement priorities were defined in collaboration with the ITEA Board in order to keep the ITEA programme strong and aligned with its goals and the innovation landscape. Below, you can find the 2022 improvement priorities along with their current statuses.

### 1.2.1 Participation in ECP groups (CC, CC Support Group) that will shape the future of the Clusters

The bodies that have been created for the governance and operation of the ECP (Eureka Clusters Programme) have continued their activities in 2022. The involvement and contribution of ITEA and its industrial members has taken place via the Clusters Committee (CC) and the CC Support Group (CC SG). The CC has not yet found a new Chair, so there has been a triumvirate consisting of industry representatives from ITEA, CELTIC-NEXT and Xecs. Besides participating in these bodies, ITEA took an active role in the InterCluster Operating Group (ICOG) in which the Eureka Clusters organise and align on collaborative topics and activities.

### 1.2.2 Selective participation in Joint Calls: improving the balance between cost/effort and the outcome of Joint Calls

As included in the 2021-2022 Annual Operating Plan (AOP) for the ECP, the launch of a Joint Call on Sustainability has been organised by the Eureka Clusters. In cooperation with Xecs, ITEA has taken the lead in the Joint Call management. All submission and evaluation processes were executed in 2022 and 11 projects have been labelled in total, of which four projects have chosen ITEA as the main Cluster and four projects have chosen ITEA as the secondary Cluster. Overall, the size of the Call is relatively small with a total cost of €26.9 M. This leads to the conclusion that the cost and efforts of Joint Calls are not yet in balance with their outcomes and results.

The preparation of any Joint Call is not (yet) included within the 2022-2023 AOP.

### 1.2.3 Evaluating rules, regulations and agreements regarding the ECP, Joint Call(s) and Cluster Cooperation and preparing ICT for Joint Calls

During 2022, the first experiences were gained with agreements between the Clusters and a Joint Eureka Clusters Call website was set up, based on the ITEA IT system, for the submission of the Joint Sustainability Call Project Outlines and Full Project Proposals.

In addition, CELTIC-NEXT and ITEA have worked on a common PA portal in which all Eureka Clusters project data is shared. Furthermore, Clusters have made a start on the sharing of costs related to the Joint Call and the project management of Joint Calls. Based on an evaluation of this, a continuation or adaptation of these agreements will be determined in the first half of 2023.

### 1.2.4 Successful ITEA bottom-up Calls in the new ECP

On 13 September, ITEA Call 2022 was launched in conjunction with the ITEA PO Days 2022 in Helsinki. By the deadline of 15 November, 32 Project Outlines had been submitted with a total of 3180 PY. These numbers were significantly higher than those of ITEA Call 2021 (23 POs and 2572 PY). On 19 December, 24 projects with a total effort of 2908 PY were invited to submit a Full Project Proposal (FPP). The deadline for the submission of these FPPs is 16 February 2023.

### 1.2.5 Continuing customer orientation by exploring other possible topical events

Although we did not participate in an external thematical fair, we continued the customer orientation by setting up an online Smart Systems Engineering workshop, a Smart Health customer workshop and holding Smart City (SCAB) and Cyber Security (CySAB) Advisory Board meetings. More information about these activities can be found in **Chapter 4.**

### 1.2.6 Continued efforts (including KPIs) on:

- **Minimising the time between the idea and the project start in the ECP**
  This is a very important KPI which has been continuously emphasised during the meetings with the Public Authorities and ITAC or during the Eureka Network meetings because it can (potentially) have a significant effect on the size and number of projects that will start within a specific Call.
- **Expanding the ITEA programme in new countries that participate in the ECP**
  Several contacts have been made and meetings have taken place between the ITEA Presidium and new countries that will become (potential) participants in the ECP. The most important ones are the United Kingdom (£5 M allocated for ITEA Call 2022), Singapore, Switzerland, Israel and Denmark.
- **Expanding the ITEA Board**
  The ITEA Board proudly welcomed Canon Production Printing Netherlands B.V. (hereafter Canon) as a new member during the Board meeting of 1 December in Stockholm. Canon is the second Dutch participant of the ITEA Board. Unfortunately, Enerim from Finland decided to leave the Board in 2022.
- **Expanding the ITEA Impact stream**
  Also in 2022, four new ITEA Impact stories were added to the online ITEA Impact stream, showing strong results achieved in different domains, pushing the Digital Transition and improving customer satisfaction. PS-CRIMSON tackled information fragmentation in cities by developing a unique 3D smart digital model that combines all of the gathered data in one common platform, while MOS2S took the outdated broadcasting concept to the next level, adding a completely different dimension with new features. SPEAR took up the challenge to enable companies to manage resources more effectively in order to reduce their energy consumption and costs significantly and increase their productivity in a sustainable manner and APPSTACLE has created a platform connecting cars and transportation vehicles to the cloud using hybrid communication technologies for vehicle-to-everything (V2X) communication. More information about these stories can be found in **Section 1.1.**
- **Setting up press approach in cooperation with partners**
  Like in recent years, ITEA Communications worked together with the project partners of the ITEA Award-winning projects to create four press releases and strengthen dissemination:
  - CyberFactory#1
  - IMPACT
  - OPTIMUM
  - PANORAMA

  The OPTIMUM project, which won the Exceptional ITEA Award of Excellence, was particularly well promoted in other media. More information about this can be found in **Section 4.4.**

### 1.2.7 High-level KPIs

The ITEA Office has a Quality Management System (QMS) in place; since April 2014, this QMS has been ISO9001:2008-certified and, since April 2017, the QMS of the ITEA Office has met the requirements of the new ISO 9001:2015 standard. As part of this QMS, several high-level KPIs have been defined for ITEA. In 2022, ITEA achieved the following scores for these high-level KPIs:

| Strategic Leadership | Target 2022 | Realised 2022 |
|---|---|---|
| Forecast for funded Call size of ITEA Call 2021 | >€110 M | €65 M - €85 M |
| Time from idea to project start of ITEA Call 2021 | <12 months | 19 months (estimated) |
| Hit rate of ITEA 3 Call 7 | >70% | 50% |
| Average quality of events (smart engineering technical workshop, customer workshop, PO Days) | >3.5 | 4.0 |

**Table 1:** Results for ITEA high-level KPIs 2022

In this annual report, the sections **3.1 ITEA programme size, 3.2 ITEA Calls progress** and **4.2 ITEA events** give an explanation and more details on these KPIs and their values in 2022.

## 1.3 ITEA improvement priorities 2023

To continuously enhance the ITEA programme, improvement priorities are defined on a yearly basis. For the upcoming year, the following improvement priorities have been defined.

### 1.3.1 Maintain/preserve ITEA bottom-up Calls in the ECP

First of all, 2022 was focused on organising successful physical PO Days where the ITEA Community could finally meet face-to-face once again after three years. The success and participation were regarded as an important sign of the strength and cohesiveness of ITEA, with high-quality proposals.

In 2023, there will also be a strong focus on the launch of the next ITEA Call, showing evidence that the bottom-up Calls are the essential ingredient for the vitality of ITEA that need to be continued and improved over the coming years.

### 1.3.2 Increase knowledge and awareness of ITEA, its projects and their impact among stakeholders

To maintain and increase support from our stakeholders, it is of high importance that the results and impacts of projects are well-known among them. Dedicated efforts will therefore be made to increase awareness and knowledge of ITEA and its projects. Actions towards Public Authorities, dedicated country pages and Project Benefit stories will be part of this. The actions will be executed in close cooperation with Board companies.

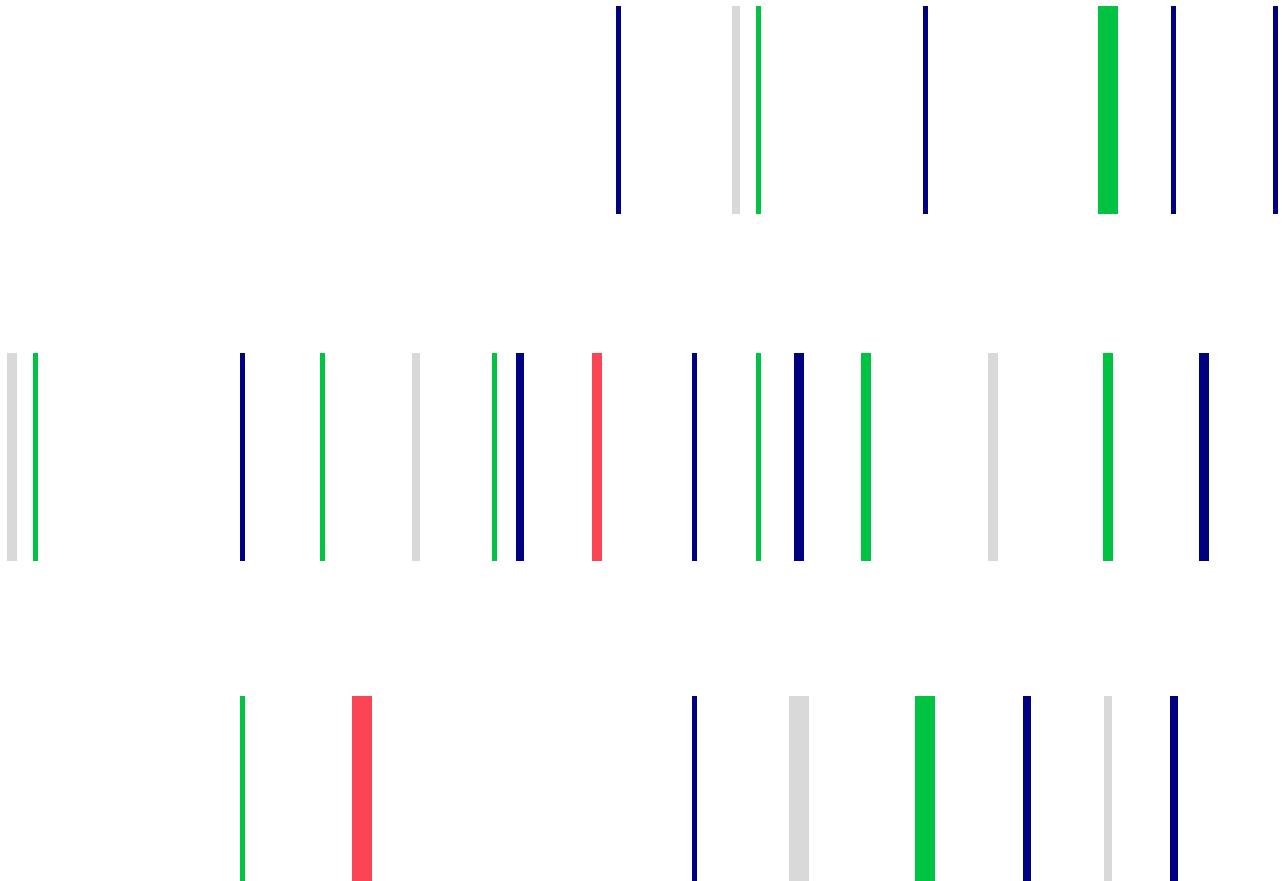
### 1.3.3 Mobilising new income sources and funding opportunities

To cope with the current trends of decreasing Call sizes and the related contribution income, ITEA will search for new opportunities to enlarge the funding of projects, plus new sources of income. This could possibly take the form of launching dedicated Calls that offer collaboration opportunities for companies from specific sectors of specific countries.

### 1.3.4 Continued efforts on:

- **Getting the overall ITEA Call size back towards at least €120 M**
  This KPI has become more challenging in recent years due to decreasing funding levels, specifically for ITEA 3 Call 6. Despite some improvements in the following ITEA 3 Call 7 and ITEA Call 2021, continued efforts are necessary to get the Call size back towards at least €120 M, which is essential to keeping ITEA at its current operating level. The ITEA Presidium developed an action plan to pro-actively approach Board companies and Public Authorities for increased support for ITEA.
- **Participating in the ECP Groups that govern the ECP execution**
  ITEA will continue to participate in the different ECP Groups: the Clusters Committee and the CC Support Group. Through the ICOG, there will be close contact with the Central Coordinating Functions (CCFs), for which the CCF PA will be the direct liaison with the Public Authorities Committee (PAC) and PAC Support Group of the ECP. In 2023, special attention will be given to the midterm review for the Eureka Clusters after two years of ECP. This will also be the moment that the Clusters have to apply for continuation of their EPC Cluster label for the following four years.
- **Continuing customer orientation (Advisory Boards, customer workshop, thematic webinars)**
  ITEA will organise another customer-oriented workshop in 2023 and Smart cities will be the theme for this year. In addition, we will continue to work on the Smart City Advisory Board and Cyber Security Advisory Board portals. Finally, we will explore opportunities to bring together several stakeholders on smart agriculture as this topic is becoming more and more prominent in the ITEA Calls.

- **Minimising the time between the idea and the project start in the ECP**
  To improve the processes of the Clusters, they have been reorganised into the new Eureka Clusters Programme, which should lead to better and clearer funding decisions more quickly. This applies to the Joint Calls as well as to the ITEA bottom-up Calls. The importance of shortening the time between the project idea and the project start is recognised by the participating ITAC members. For both the bottom-up ITEA Calls and the Joint Eureka Clusters Calls, we are striving for improvements and targeting a time-to-project of 12 months.
- **Expanding the ITEA programme in new countries that participate in the ECP**
  Eureka has a big network of participating countries and is continuously investing in participation by new countries. The Joint Calls, where PAs also have a voice in choosing the subject, are a strong tool for attracting new countries and familiarising them with the Clusters. These new countries can then more easily be approached and involved in ITEA's bottom-up Call. For example, Singapore participated in the 2020 Joint AI Call preparations and is now involved in a project within ITEA Call 2021. Luxembourg is participating in the Eureka Clusters Sustainability Call and is potentially interested in supporting upcoming ITEA Calls. Meetings and an event are scheduled to stimulate participation by Luxembourgish companies.
- **Expanding the ITEA Board**
  In 2023, we will continue to look for strong candidates to strengthen the ITEA programme and software innovation in general. As in previous years, we aim to expand the ITEA Board with two more companies.
- **Expanding the ITEA Impact stream**
  As in past years, ITEA will continue its efforts to highlight and promote the strong outcomes of ITEA projects. For 2023, a goal has been set to publish at least four new ITEA Impact stories.
- **Maintaining operational quality, continuing to involve stakeholders in improving the quality and continuing the ISO 9001 certification**
  The high quality of ITEA's activities is one of the unique characteristics of the ITEA Office. This is expressed by the high level of stakeholder satisfaction and appreciation of our activities. This is part of ITEA's USPs and an important ingredient that leads to successful outputs and impacts of ITEA projects. The quality will be maintained and profiled in 2023, adding to the legitimation of the support from the Public Authorities for our next Call and projects.



# 2/ Positioning and ECP activities

## 2.1 Positioning of Eureka, the ECP and ITEA

Eureka is the world's biggest public network for international cooperation on RD&I and innovation, present in over 45 countries. Eureka aims to boost the competitiveness and innovation capacity of Eureka countries and industries via international collaboration in funded projects.

Eureka has different instruments to foster innovation, including the Eureka Clusters Programme (ECP). These instruments are funded by national Public Authorities. Eureka therefore means more dialogue between industry and Public Authorities, and this dialogue enables new projects to be funded and new instruments to be developed based on the national priorities defined by Public Authorities and the urgent needs of industry.

The ECP consists of industry-driven and bottom-up RD&I programmes with thematic communities of experts. The ECP enables Eureka to be proactive, faster and more flexible and to also address new and emerging areas and cross-cutting themes for RD&I collaboration which complements the themes addressed by the Eureka Clusters.

ITEA is the Eureka RD&I Cluster on software innovation, enabling a strong international community of large industry, SMEs, start-ups, academia and customer organisations to collaborate in funded projects that turn innovative ideas into new businesses, jobs, economic growth and benefits for society. This is industry-driven and covers a wide range of business opportunities facilitated by digitisation, such as smart mobility, healthcare, smart cities, energy, manufacturing, engineering and safety & security. ITEA pushes important technology fields like artificial intelligence, big data, simulation, cybersecurity and high-performance computing into concrete business applications.

### 2.1.1 Complementarity in the European RD&I funding landscape

In many countries, there are national programmes that help to establish critical mass and differentiation for developing organisations and support national champions that meet the RD&I strategies and plans of the country. In national programmes, the project consortia (mainly consisting of organisations from only one country) are restricted to the available national RD&I resources and capabilities. But many projects need an international scope and market to realise the full potential of their ambitions. Eureka and the Eureka Clusters Programme, including ITEA, offer such an international scope, ecosystem and market.

At the European level, there are strategic programmes based on agreed priorities that provide support for early collaborative activities, as in Horizon Europe, and large technology initiatives, as in the Key Digital Technologies (KDT) JU. These programmes have a top-down approach in which work programmes define specific topics to address major technological, economic and societal challenges. The topic of each Call for proposals is often quite prescriptive, allowing a relatively limited scope for applicants to explore undefined topics that cross over different thematic areas. Whereas the European Union (as a supranational entity) tends to focus on the harmonisation of rules and the centralisation of implementing programmes, Eureka (being an intergovernmental organisation) emphasises the need for diversity, flexibility and variable geometry in the cooperation between countries. These approaches are fully complementary and mutually reinforcing.

In addition, the industry-driven, bottom-up focus of the Eureka Clusters Programme, including ITEA, and the close connection with national RD&I priorities perfectly complement the multinational and research excellence focus of Horizon Europe. In some cases, an ECP project might be the logical next step for a Horizon Europe project consortium to successfully exploit their project results and bring them to the market.

## 2.2 ECP bodies

To optimise collaboration and the operation of the ECP, several ECP working groups have been set up in which ITEA representatives take part:

- **ECP-related working groups**
  - The Clusters Committee (CC) is composed of industry representatives from the Eureka Clusters. The CC is the decisionmaker and strategical decision body for the ECP on the industrial side. The CC and Public Authorities Committee (PAC) define the themes for the Joint Eureka Clusters Calls and steer the future of the ECP.
  - The Clusters Committee Support Group consists of three representatives from members of the CC companies in order to support CC meetings and discuss CC-related topics at the execution level. This group is chaired by the CCF for industry, Sébastien Aubron.
  - The InterCluster Operations Group (ICOG) has been established to take care of the daily operations of the Clusters regarding the ECP, including the definition of Joint Eureka Clusters activities like Joint Calls and the preparation of the Multi-Annual Plan (MAP) that will be issued every two years.
  - The Eureka Clusters Communications Group is composed of the Communications Officers of all Eureka Clusters and the Eureka Secretariat and has the purpose of preparing all events and means of communication regarding the Eureka Clusters Programme. ICOG has final approval on all that is prepared by the Clusters representatives in this Communications Group.

## 2.3 **ECP activities**

An overview of all ECP-related activities in which the Eureka Clusters collaborated, including Calls and events, can be found below. An overview of ITEA's 2022 activities and events can be found in **Chapter 4**.

- **ECP Calls and events**
  - **Eureka Clusters Sustainability Call 2022, including the online Brokerage event**

    Together with Xecs, ITEA was Call leader for the Eureka Clusters Sustainability Call 2022. ITEA was responsible for the website and submission platform.

    In order to support project idea leaders in the creation of a project proposal and the building of their consortium, an online Brokerage event was organised on 23 March 2022 for the Eureka Clusters Sustainability Call 2022. The event consisted of four different sessions: an introduction, project idea pitch sessions, online break-out sessions and a session on the next steps. During the event, 18 pitches were presented and 440 participants from 31 countries were registered for this free online event.

    The Eureka Clusters Sustainability Call Brokerage event was a fully-packed day. In order to fully benefit from this Brokerage event, a one-hour online Brokerage preparation session was also organised on 10 March.

    This Joint Sustainability Call followed a two-stage process and, by the deadline of 2 May 2022, 29 Project Outlines had been submitted, of which one was rejected immediately due to low quality and inconsistencies. The 28 remaining submitted POs had 1188 Person Years of total effort. Seven of the submitted POs had selected ITEA as the main Cluster and 10 POs had selected ITEA as a secondary Cluster. After evaluation, 17 consortia were invited to submit a Full Project Proposal but, by the deadline, only 15 FPPs with 93 project partners from 14 countries and a total effort of 620 Person Years had been submitted. Four consortia had selected ITEA as the main Cluster and seven had selected ITEA as a secondary Cluster. On 18 November, the labels were announced and 11 projects with a total effort of 480 Person Years received a label for the Eureka Clusters Sustainability Call 2022. Three projects with ITEA as the main Cluster were labelled, with a total effort of 200 Person Years. Another project with ITEA as the main Cluster and a total effort of 52 Person Years received a conditional label. This means that this project has to submit a Change Request and make several improvements before the start of the project.

    Call statistics and a description of each labelled Eureka Clusters Sustainability Call project that selected ITEA as the primary or secondary Cluster can be found in **Chapter 3** and **Appendix A.**

  - **Global Innovation Summit 2022, Estoril (22-23 June 2022)**

    Together with all of the Eureka Clusters, ITEA was part of the Global Innovation Summit (GIS) 2022 in Estoril. This event was organised by the Portuguese Eureka Chair on 22-23 May and was inspired by the Atlantic, with the motto Innovation for a Greener, Digital and Healthier Planet through a collaborative approach. GIS 2022 focused on three main areas – Tech for Green, Digital Transition and Strategy & Policy-Making – to discuss and address global concerns such as present and future environmental and health challenges, how to reduce inequality and how to contribute to sustained and long-term economic and inclusive growth.

    At this event, ITEA exhibited via a physical booth together with all of the Clusters. Eureka Clusters were also part of the Eureka Academy session that took place in the afternoon of day one of the event. This session allowed participants to learn more about the range of support and services offered by the Eureka Network, the procedures to follow and how to best prepare your possible project participation.

    On day two, the Eureka Clusters jointly organised a session called 'How do Clusters generate strong impact for participating organisations and countries in the field of digital transition?' In this session, attendees learned about the strong outcomes and impact of collaborative projects, both from industry and from the side of policymakers.

    During the GIS 2022, the Eureka Innovation Awards were presented in five categories. We are very proud of the ITEA projects and Community members, which were very well-represented in this competition: IMPACT was a finalist in the category 'Best Product and Service Innovation', TESTOMATproject leader Sigrid Eldh was nominated in the category 'Best Woman in Leadership' and the ITEA SPEAR project won in the 'Best Sustainable Innovation' category.

– **Global Tech Korea 2022 (25-26 October 2022)**
On 25-26 October, the Ministry of Trade, Industry and Energy (MOTIE) of South Korea and the Korea Institute for Advancement of Technology (KIAT) hosted Global Tech Korea 2022 in Seoul. The event programme consisted of four main parts, including keynotes, technology seminars & panel discussions, a regional forum and idea pitch & B2B sessions.
During the regional session on 26 October, a special seminar focusing on the Eureka Clusters was organised. The purpose of this seminar was to promote the Clusters to South Korean participants by giving them in-depth information on what the Clusters are and how to participate in their activities. Ultimately, it was an excellent opportunity to stimulate South Korean participation in the Clusters.
After a general Clusters introduction, each Cluster presented its ecosystem and way of working. On behalf of ITEA, Vice-chairman Jean-François Lavignon informed the attendees about the opportunities to engage in ITEA. Daesub Yoon from ETRI, partner in the successful OPTIMUM project, highlighted the benefits of collaborating in ITEA projects for Korean partners in another session.

# 3/ Calls overview

## 3.1 **ITEA programme size** (status on 31 December 2022)

At the moment, three Calls from ITEA 3, one Call from ITEA 4 and the three Joint Eureka Clusters Calls: AI Call 2020, AI Call 2021 and Sustainability Call 2022 (where the projects received their label on 18 November 2022) are all running. Furthermore, projects for ITEA Call 2022, the second Call of ITEA 4, have recently submitted their Project Outlines. In total, 32 projects submitted a Project Outline (PO) and, after evaluation, 24 projects were invited to submit their Full Project Proposals (FPP). The submission deadline for the FPPs is 13 February 2023.

In total, 55 projects of the ITEA 3 Programme have been completed, of which 14 projects ended in the past year. Currently, 42 projects are running (27 projects from ITEA 3, three projects from ITEA 4 and 12 projects from the Joint Eureka Clusters Calls). 20 projects are still waiting for their final funding decisions (13 projects from ITEA 3 and 4 and seven projects from the Joint Eureka Clusters' Calls AI Call 2021 and Sustainability Call 2022 with ITEA as the main Cluster).

All projects from ITEA 3 Calls 1 to 4 have now been completed with funded Call sizes of €103 M, €119 M, €104 M and €120 M respectively. Call 5 developed toward €93 M and, due to a lack of funding and delays in funding decisions in Call 6, only nine out of 20 projects started and the funded Call size realised will only be around €60 M. Although there are still quite a few pending decisions, Call 7 signals a slight increase in the funded Call size, which is forecasted between €65 M and €70 M. On the other hand, the funded Call size for the Joint Eureka Clusters AI Call 2020, which is running in parallel to ITEA Call 6, will reach a size of around €32 M. With some projects still facing pending funding decisions, Joint AI Call 2021, running in parallel to ITEA Call 7, is forecasted to reach a Call size of around €25-28 M. Finally, the projects from the Joint Eureka Clusters Sustainability Call 2022 only received their label on 18 November. While there are no funding decisions yet, the funded Call size for the projects of this Call with ITEA as the main Cluster is forecasted to be between €6 M and €10 M.

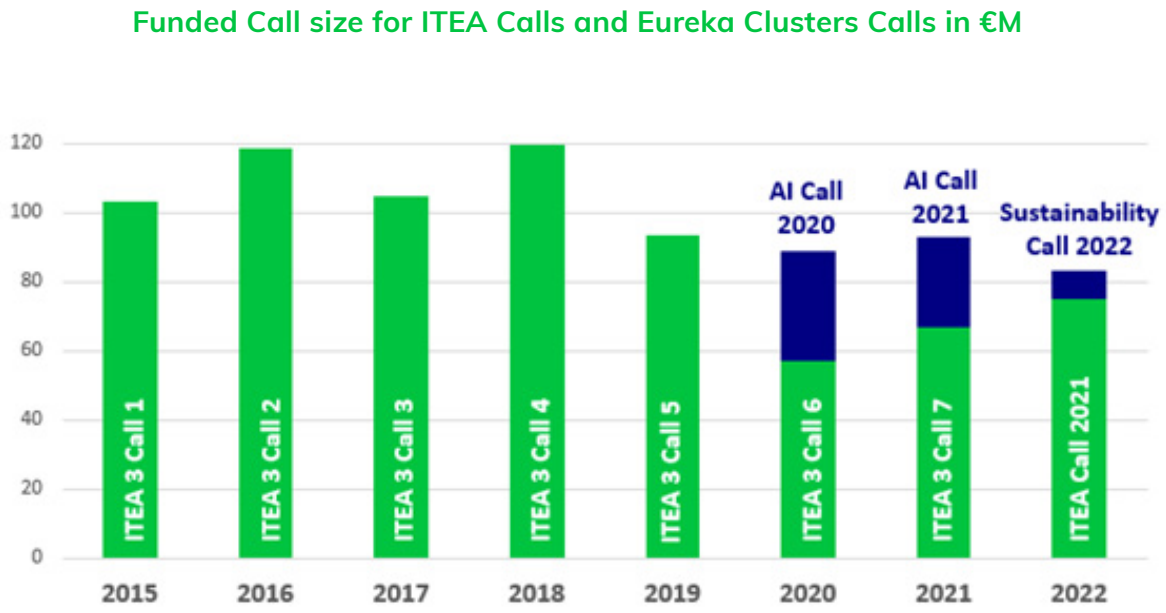



**Figure 1:** ITEA (estimated) funded Call size in million euros.

## 3.2 Calls progress

### 3.2.1 ITEA Calls and Joint Eureka Clusters Calls progress

In the following graph, the progress of the ITEA Calls is represented by several hit rates. These hit rates show the percentage of the projects, efforts and costs actually accomplished or actually running in the ITEA programme compared to the projects, efforts and costs initially labelled.

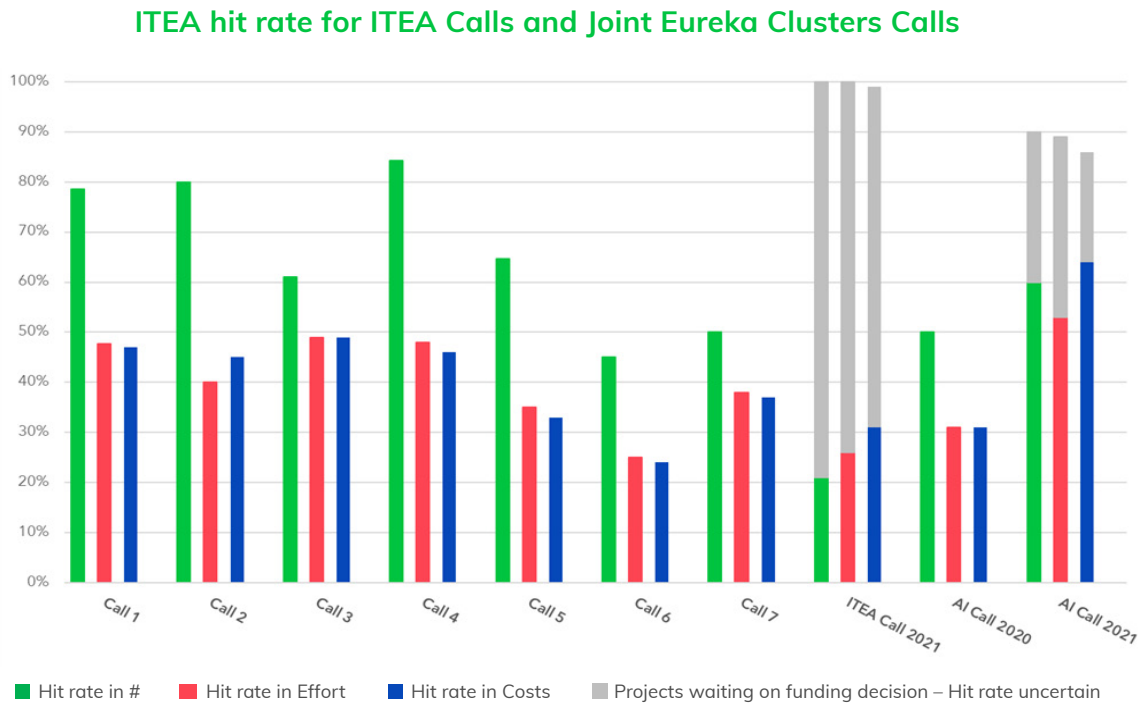



**Figure 2:** ITEA hit rates for ITEA 3 Calls 1 to 7, ITEA Call 2021, the Joint Eureka Clusters AI Call 2020 and AI Call 2022 as of 31 December 2022. Figures based on latest FPP.

All projects in ITEA 3 Call 1, Call 2, Call 3 and Call 4 have now been completed. ITEA 3 Call 5, Call 6 and Call 7 are still subject to some (minor) changes as Change Requests are also possible for ongoing projects. Nevertheless, these Calls are rather stable now. The same goes for the Eureka Clusters AI Call 2020, which reached a hit rate of 50% in terms of number of projects; the same as the hit rate for ITEA 3 Call 7, although that Call shows a higher hit rate in terms of costs and effort.

After very low hit rates for Call 6, there has been an improvement for ITEA 3 Call 7 and this improvement can also be expected for ITEA Call 2021 and AI Call 2021. However, for ITEA Call 2021 and AI Call 2021, there are still a lot of uncertainties, making it hard to give a good estimate of the final hit rates for these Calls.
As the Eureka Clusters Sustainability Call projects were only recently labelled, this Call has not been taken into account in these hit rate figures.

A quick start to a project can have a positive impact on maintaining its original size as partners remain involved and the topic remains relevant, as is also visible in Figure 2. The time from project idea to project start has therefore been a high-level KPI in ITEA for a few years now. As the result of the fact that this KPI did not improve over the first ITEA 3 Calls, the ITEA label validity deadline was implemented as of ITEA 3 Call 3.

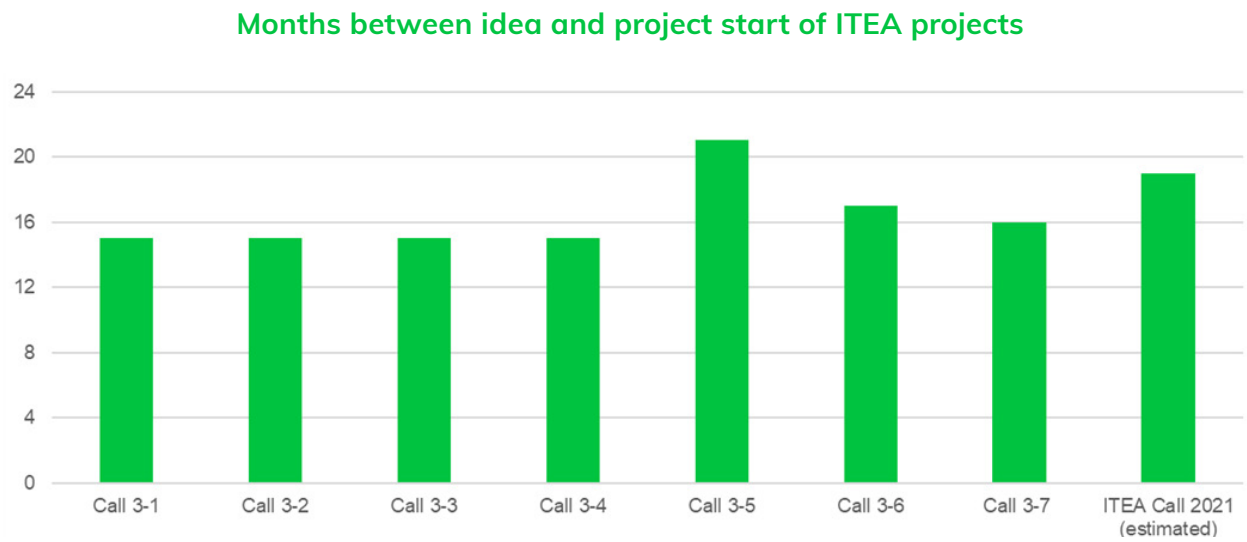



**Figure 3:** Time from ITEA project idea to project start (when >50% of the projects of the Call have started) from ITEA 3 Call 1-7 and ITEA Call 2021.

Due to several circumstances and the changing environment, however, the label validity deadline has not yet resulted in a reduction of the time-to-project. Regarding ITEA 3 Call 5, the time-to-project for this Call was even more than the previous Calls due to funding decisions in Germany and the changed situation in France. Call 6 was a special case as it never reached the hit rate threshold of 50% of projects started as only nine out of 20 projects started. For Call 7, a shorter time from idea to project was reached with 16 months, which is an improvement compared to Call 5 and Call 6. Nevertheless, it is expected that ITEA Call 2021 will hit the threshold of 50% in 19 months, which is again longer than ITEA 3 Call 7, and this is still not close to the desired level of 12 months or less, so this remains one of our improvement priorities.

The current status of the ITEA projects is as follows:

| | 2022 | | | 2021 | | |
|---|---|---|---|---|---|---|
| | # | Effort in PY | Cost in €M | # | Effort in PY | Cost in €M |
| Labelled during the year | 18 | 2417 | 194 | 26 | 3007 | 279 |
| Running at the end of the year | 43 | 3752 | 351 | 41 | 3722 | 352 |
| Waiting at the end of the year | 17 | 1877 | 135 | 20 | 1928 | 164 |
| Completed during the year | 14 | 1361 | 119 | 8 | 631 | 65 |
| Cancelled during the year | 5 | 512 | 48 | 17 | 2216 | 207 |

**Table 2:** Status of ITEA projects in 2022 and 2021 as of 31 December 2022 and 31 December 2021 respectively. Figures are based on labelled and latest FPPs. Note: the figures include the ITEA projects that resulted from the Joint Eureka Clusters Calls as projects become ITEA projects after labelling (in case they indicate ITEA as the main Cluster).

## 3.3 Project landscape

To create innovation-driven growth, ITEA needs to focus on future markets and the challenges posed by a fast-changing world in which 'smart' is the key concept. At present, there are eight main societal challenges that the ITEA Community addresses. The figure below shows the distribution per Call of the ITEA projects across these challenges, except for the Smart energy challenge that was introduced only in 2021. Over time, the strongest contribution has been in the field of Smart engineering, with a very good coverage of the Smart health, Safety and Security and Smart industry challenges as well. As Joint Eureka Clusters Calls do not use the same main societal challenges, figures from these Calls are not represented in this graph.

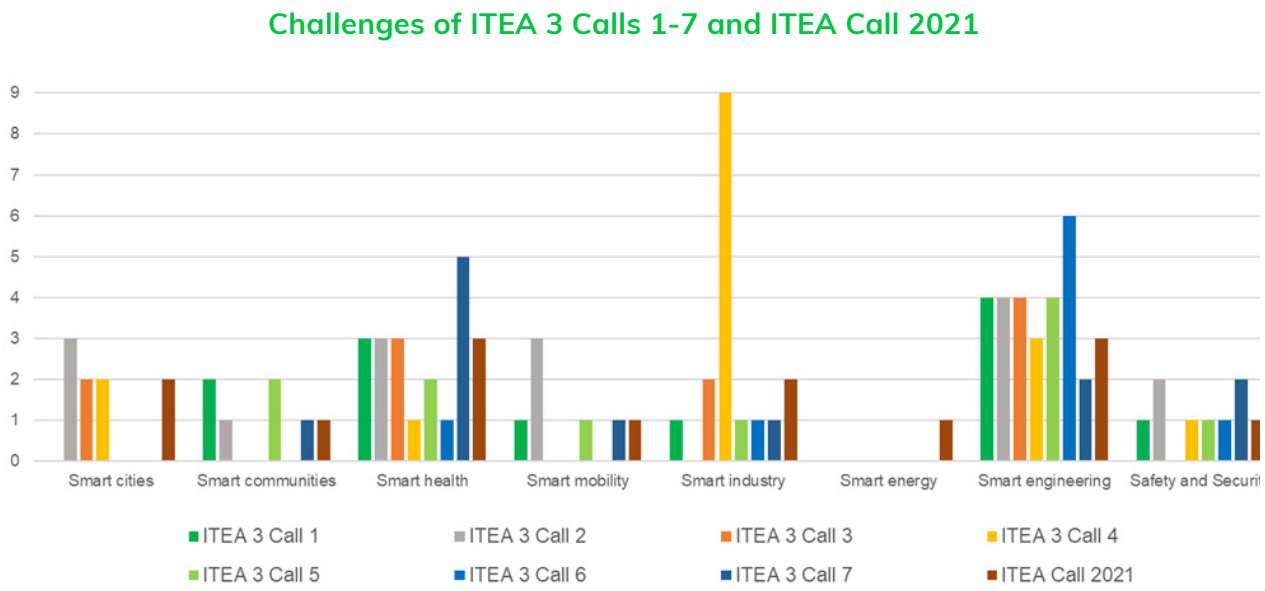



**Figure 4:** Number of ITEA 3 and ITEA 4 projects per ITEA challenge

## 3.4 New projects - ITEA Call 2021

The first Call of ITEA 4, ITEA Call 2021, delivered 15 submitted FPPs, ultimately resulting in 14 labelled ITEA projects involving 2205 PY and 14 countries. This Call has generated projects for all of the eight ITEA smart challenges, showing the relevance of the bottom-up approach. We again have a strong participation of SMEs, which represent almost half of the total effort of the labelled projects. The SMEs are complemented by many large industrial players (around 30% of the total effort) and high-level academic partners (around 20% of the effort). It is interesting to note that we have a healthy rate of newcomers as more than 50% of the project partners have not been involved in ITEA projects during the past five years.

As mentioned above, it is expected that the size of several ITEA Call 2021 projects will be reduced due to some (delays in the) funding decisions. In February 2023, LimitLess was cancelled. Due to lack of funding in the main countries, some additional projects might be cancelled in the coming months.

The themes arising from this Call are:

| Theme | ITEA Call 2021 projects |
|---|---|
| Smart engineering | GenerIoT, ZEE |
| Smart health | DAIsy, RM4HEALTH, SYMPHONY |
| Safety and Security | VESTA |
| Smart communities | EARS |
| Smart mobility | TAPCOP |
| Smart industry | EXPAI SmartIndustry, TiDiT |
| Smart energy | BENTRADE |
| Smart cities | AIMOB SmartCity, SOCFAI |

A short description of each project can be found below.

### AIMOB SmartCity

21029

*Modelling and optimization of biofuel production and advanced monitoring systems for Smart Cities*

**Project leader:** Inovasyon Muhendislik (Türkiye)

Renewable energy (bioenergy) is one of the key factors for ensuring the sustainable development of smart cities and beyond. The aim of AIMOB SmartCity is to produce biofuels from microalgal biomass by using artificial intelligence (AI) in modelling and optimisation and developing an advanced monitoring system for Smart Cities. Simulation-based production planning of biofuel from microalgal biomass gives rise to a reduction in operational costs and makes biofuel competitive with fossil fuels. The model developed will enable new services for local trading (Energy-as-a-Service).

https://itea4.org/project/aimob-smartcity.html

## BENTRADE

21003

*Blockchain Based Energy Trading Platform*

**Project leader:** KoçSistem (Türkiye)

Demand for electricity is set to grow and cost-effective solutions are emerging to optimise and effectively manage the transitioning electrical grid. BENTRADE aims to provide an innovative software platform with services and tools for the rapid development and deployment of Demand-Side Flexibility Management (DSFM) and energy trading solutions. The BENTRADE platform will help to overcome some of the key challenges in the energy sector - most notably intermittency, sectoral silos, balancing distribution-connected generation, managing consumer self-generation, aging grids, and coping with increasing system complexity.

https://itea4.org/project/bentrade.html

---

## DAIsy

21016

*Developing AI ecosystems improving diagnosis and care of mental diseases*

**Project leader:** ARD GROUP (Türkiye)

Major depressive disorder (MDD) is a common psychiatric disorder, ranking as the second leading contributor of years lived with disability. Finding the right approach for individual patients remains challenging. DAIsy will develop and bring to the market AI-supported solutions for improved diagnosis, treatment selection, diet monitoring, activity tracking, support in behaviour adjustments, and treatment response assessment. Novel AI techniques will be jointly developed to advance the AI applicability for these fragile patients by advancing techniques for large data points/patient ratios, improving explainability and uncertainty quantification.

https://itea4.org/project/daisy.html

---

## EARS

21017

*Environment Adaptive Recommendation System*

**Project leader:** ARD GROUP (Türkiye)

The main problem of many domains is a lack of information and guidance, as potential customers cannot be reached because there is not enough information and guidance towards the right products. The EARS project aims to bring together all parties in the value chain, creating an ecosystem, providing a new platform that fits the purposes of all parties and enabling them to collaborate. Entities such as businesses, algorithm developers, solution providers, service providers and recommendation systems are brought together to enhance their capabilities or those of others, monetising the artefacts by utilising them as a service.

https://itea4.org/project/ears.html

---

## EXPAI SmartIndustry

21028

*Integrating AI into smart control systems and increasing productivity for industrial areas*

**Project leader:** Acd Bilgi Islem ltd.sti. (Türkiye)

Smart technologies are gaining higher importance while supporting Artificial Intelligence technologies that we use in our lives. The main goal of this project is to provide a flexible, controllable digital environment supported by an Explainable Artificial Intelligence digital smart platform that will collect and analyse sensor data from various resources for different domains. These will be combined in a common framework in industrial areas and the retail market. The project will present novel methods and solutions for the industrial market and real-life use-cases for exploitable solutions.

https://itea4.org/project/expai-smartindustry.html

## GenerIoT

21014

*Generating and Deploying Lightweight, Secure and Zero-overhead Software for Multipurpose IoT Devices*

**Project leader:** Infineon Technologies (Germany)

Distributed hardware/software systems (often interconnected via the internet) which gather information via sensors and influence the environment via actors must be up to date, especially with regard to security. Additionally, connectivity offers the opportunity to adjust in-field systems to user needs. This requires an efficient development flow enabling short development cycles. GenerIoT will provide new technologies and processing steps in order to simplify and speed up the handling of IoT software over the complete DevOps cycle. The approach proposed by GenerIoT will open new business opportunities: IoT apps.

https://itea4.org/project/generiot.html

---

## RM4HEALTH

21022

*Remote Monitoring in Health and sports*

**Project leader:** Philips (Netherlands)

Wearable health monitoring systems provide a big promise of allowing individuals to closely monitor changes in their vital signs and provide feedback to regain or maintain an optimal health status. The RM4Health project will accelerate innovation in electronic wearable devices. RM4HEALTH will focus on the development of open technology platforms for vital sign monitoring for these emerging fields to help them bridge 'the Valley of Death' in a shorter time and at a lower cost. RM4HEALTH aims to stimulate innovation in continuous monitoring in healthcare and sports.

https://itea4.org/project/rm4health.html

---

## SOCFAI

21020

*Secure Open Collaboration Framework powered by Artificial Intelligence*

**Project leader:** TAV Technologies (Türkiye)

The SOCFAI project focuses on airports and addresses the problems caused by the collaborative and multi-stakeholder nature of their operations. This is providing new ways to manage the operations cycle, enable real-time common situational awareness of all aspects of airport operations, optimise different core processes, enable predictive and fully integrated operations management and facilitate customer service management and orientation, all while trying to improve overall customer satisfaction levels by introducing an open-source framework equipped with technologies such as AI, Computer Vision, VR, IoT, LIDAR, etc.

https://itea4.org/project/socfai.html

## SYMPHONY

21026

*Eco-system for disease specific clinical workflow and data integration*

**Project leader:** Philips (Netherlands)

Healthcare today faces many challenges like improving patient outcome, working cost-effectively while finding a balance with growing demand, declining staff capacity and new clinical/technological developments. COVID has clearly shown the urgency for healthcare IT to ensure efficient decision-making and co-operation and a reduction of strain on the sector. The most effective way to achieve this is to unlock the full potential of the knowledge hidden within the enormous amounts of medical data generated. The objective of SYMPHONY is to create an open healthcare IT ecosystem, providing care professionals with real-time, comprehensive insights into a patient's status and integrating all relevant information for diagnosis, treatment selection and follow-up.

https://itea4.org/project/symphony.html

---

## TAPCOP

21032

*Traffic AI Prediction of Common Operational Picture*

**Project leader:** To be defined. Change Request is in preparation.

Authorities continuously struggle with managing and controlling traffic and crowds to prevent safety incidents and discomfort. They lack efficient solutions to prevent these problems. TAPCOP realises situational awareness and data-driven management of visitor flows, provides AI-based sensors and aggregates multiple data sources using AI to create a more reliable and complete view of the situation and predict overcrowding. TAPCOP offers a one-stop solution for multi-modal mobility management and prevention of overcrowding by personally advising visitors pre-trip, on-trip and on-site via social media, navigation systems and other mobile phone apps.

https://itea4.org/project/tapcop.html

---

## TiDiT

21023

*Timeline-Driven Digital Twin*

**Project leader:** BITES (Türkiye)

The current digital twin services on the market do not completely fulfil customer needs and are unable to prevent unexpected breakdowns and provide cost-effective models. Moreover, end-users have to set up every simulation using different software, which results in high costs, time and effort. By bringing together different software capabilities while fulfilling customer needs with the implementation of innovative technologies, the TiDiT project aims to create an 'as a service' model timeline-driven digital twin platform to enable a better decision-making process and increase situational awareness.

https://itea4.org/project/tidit.html

## VESTA

21011

*Proactive protection against phishing-based ransomware*

**Project leader:** VisionWare - Sistemas de Informação, S.A. (Portugal)

Every year, millions of users fall victim to malware threats in various ways. The VESTA project aims to develop a European cybersecurity system to proactively protect systems against ransomware attacks. It combines multiple techniques such as AI/ML, data & knowledge extraction, anti-phishing, human behaviour analysis and sandboxing to build a multilayer ransomware attack mitigation platform capable of preventing, defending and remediating such attacks. Moreover, VESTA may also tackle the challenges related to the multi-language nature of phishing emails via collaboration between partners from different countries.

https://itea4.org/project/vesta.html

---

## ZEE

21015

*Zero-Data Exchange for Engineering*

**Project leader:** SETLabs Research GmbH (Germany)

There is a high need to process privacy and intellectual property-related digital artefacts, such as datasets, models or algorithms. The vision of ZEE is that no copies must be created for the processing of these artefacts. Technical issues of security and privacy can be addressed with novel approaches. However, current IT infrastructures represent major barriers. Much sought-after applications like controlled data sharing, distributed computing or distributed toolchains are effectively prevented. The ZEE project aims to exploit edge/network/cloud computing-based mechanisms to circumvent these issues in order to enable new business opportunities through a more generous attitude towards sharing in industry.

https://itea4.org/project/zee.html

## 3.5 New projects - Eureka Clusters Sustainability Call 2022

The Eureka Clusters Sustainability Call 2022 delivered 15 submitted FPPs, ultimately resulting in 11 labelled projects involving 482 PY and 68 partners from 14 countries. The most represented countries are Türkiye (nine projects), Portugal (six projects) and Belgium (four projects). ITEA is the primary Cluster for four projects and a secondary Cluster for four additional ones. With a representation of 65% of the total effort, SMEs are the main contributors to this Call. Large industry covers 16% of the effort, followed by universities with 11%.

The main themes arising from the labelled projects in this Sustainability Call 2022 are:

| Theme | Eureka Clusters Sustainability Call 2022 – projects |
|---|---|
| Circular economy | AgAPP-e, NRPCES, RETAILL |
| Sustainable logistics and supply chain management | Resource2Tab, RETAILL |
| Green ICT | DefectFree, iDT4GDC |
| Sustainable manufacturing | DefectFree, SMCMSSPPA |
| Renewable energy | ONE, Valkyrie |
| Distributed intelligence and low data transmission | RETAILL |
| Earth, Ocean, Space observation systems and exploitation | UAV-GG |
| Power electronics and management | ONE |
| Other | SmartAgroInsurance |

A short description of the projects related to ITEA can be found hereafter. The first four projects, with green titles, have indicated ITEA as their main Cluster and the last four projects, with blue titles, have indicated ITEA as secondary Cluster:

### AgAPP-e

SUS2022-020

*Agriculture's digital Analyser of Production for Phosphorus efficiency*

**Project leader:** Experteam (Türkiye)

For improved production and environmental protection, fertiliser management needs to be local or site-specific; depending on the regional metabolism, agricultural efficiency can be increased even fourfold if the flows and stocks are well-observed. Digital solutions will greatly improve the management of such essential resources, but these are currently missing, leaving the farmer without simple tools capable of providing targeted diagnoses for targeted treatments. AgAPP-e aims to automate fertiliser recommendations and thereby improve accuracy and increase the phosphorus efficiencies of a nation.

https://itea4.org/project/agapp-e.html

### RETAILL

SUS2022-071

*REtail using Technology based on Artificial InteLLigence*

**Project leader:** Polytechnic Institute of Porto (Portugal)

Food waste is one of the main problems in the current food supply chain. According to the UN Sustainable Development Goals, food losses along production and supply chains must be halved by 2030. In view of this, RETAILL aims to develop an IoT and AI-powered platform that will be adaptable to most countries' food supply chains. This system will improve the food lifecycle, ensure that food waste is valued and make logistics more efficient, thereby reducing the use of resources and increasing the profits of all actors in the value chain.

https://itea4.org/project/retaill.html

## SmartAgroInsurance

SUS2022-036

*Agro Insurance Data Management Platform with API Services*

**Project leader:** SFS Danışmanlık Bilgi İşlem San. ve Dış Tic. A.Ş (Türkiye)

Agricultural insurance is a global, fast-growing billion-dollar industry and, due to the effects of climate change, it is becoming more important every day. Effective insurance policies stabilise farm income, reduce poverty and ensure a climate safety net for food producers. SmartAgroInsurance aims to develop a Smart Agriculture Insurance Data Management Platform to provide, analyse and integrate agricultural data from different sources with insurance industry know-how so that insurance companies can achieve better premium calculations, claim automation and fraud prevention and provide supportive, damage-preventing advice to the farmer.

https://itea4.org/project/smartagroinsurance.html

---

## iDT4GDC

SUS2022-042

*Intelligent Digital Twin Platform for Climate-Neutral Data Centres*

**Project leader:** Red Dot Analytics Pte Ltd (Singapore)

Data centres are estimated to consume approximately 1% of global electricity use and contribute to 0.3% of all global CO2 emissions. Climate-neutral data centres have therefore become an important challenge. iDT4GDC aims to develop Artificial Intelligence and Digital Twin technologies into a cloud AI platform to digitalise, optimise and automate data centre operations for sustainability purposes. iDT4GDC will guide data centre operations and management towards a sustainable future along the five pillars of power, carbon, water, circular economy and governance.

https://itea4.org/project/idt4gdc.html

---

## DefectFree

SUS2022-048

*Machine learning and artificial vision for 0% waste in textile production*

**Project leader:** Smartex (Portugal)

With the aim of reducing defective textiles to close to 0%, this proposal intends to develop a new system based on artificial intelligence, machine learning, and computer vision that, when installed into circular knitting machines, can detect defects in complex fabrics in real-time during production. The economic and environmental benefits of this proposal are evident given that the textile industry is one of the largest in the world, as well as one of the most polluting.

Primary Cluster: SMART

---

## Resource2Tap

SUS2022-066

*Integrated Resource Management Platform for Water Distribution System*

**Project leader:** Reengen (Türkiye)

An integrated monitoring system will be developed to prevent water losses and indirect energy losses in urban water distribution systems and to optimise the energy consumption of the distribution system. The water leakage prevention system will offer hardware and software solutions to be developed for the detection of technical losses in the water distribution network and an end-to-end monitoring system. Resource2Tap will develop a product with high commercialisation potential that will prevent technical losses with an IoT-based endpoint monitoring system and conventional neural network-based data analysis software.

Primary Cluster: EUROGIA

## SMCMSSPPA

SUS2022-031

*Saw Machine that Can Make Smart and Sustainable Production with Prediction Algorithms*

**Project leader:** Beka-Mak Makina Sanayi ve Ticaret A.Ş. (Türkiye)

Sawing machines, used to bring raw material to the desired dimensions in industrial production companies, are of great importance since they are at the beginning of the production line and have a great effect on production efficiency. In this framework, the aim is to manufacture sawing machines with smart and sustainable production techniques which automatically optimise the cutting parameters (cutting speed, surface quality, etc.) with the data to be collected from the field and provide error and lifecycle estimation for machine equipment.

Primary Cluster: SMART

---

## UAV-GG

SUS2022-085

*Monitoring Greenhouse Gases with Long-Range Unmanned Aerial Vehicles and Novel Spectroscopic Sensors*

**Project leader:** Romaeris Corporation (Canada)

The project will use novel, long-range, large payload Unmanned Aerial Vehicles (UAVs) to carry innovative spectroscopic sensors to monitor multiple greenhouse gases (GHGs) over large geographic areas, locate emissions sources, take action and vastly improve our understanding of GHG emissions. A data portal will be created to make such GHG information available to governments and industry worldwide and the data will be made compatible with other sources of information, such as satellites, so that comprehensive and accurate GHG reporting is possible at last.

Primary Cluster: EUROGIA

# 4/ ITEA activities and events

To enable all ITEA stakeholders to get the most out of the ITEA programme and to promote the ITEA programme in the best way, several operational actions are carried out by ITEA. In this section, the details about the main operations achieved in 2022 are reported.

## 4.1 ITEA customer orientation

Alongside its customer-oriented events, ITEA has set up two Advisory Boards: the Smart City Advisory Board (SCAB), set up in 2019 and extended to 10 members in 2022, and the Cyber Security Advisory Board (CySAB), set up in 2021 and consisting of 11 members. Two meetings per Advisory Board took place in 2022; the first meeting focused on sharing challenges and the second on connecting with the related RD&I projects of ITEA. A SCAB challenge report and a CySAB challenge report have been issued as a result of the first meetings and presented as input for the ITEA Project Outline (PO) Preparation Days 2022. In addition, we have created the Smart City Advisory Board and Cyber Security Advisory Board online portals to create a continuous dialogue between customers, challenges and the ITEA Community.

## 4.2 ITEA events

One of the other main operations was the organisation of events and attendance at them. In 2022, we (co)organised the following events.

### 4.2.1 ITEA Smart Systems Engineering workshop (7 April 2022)

On 7 April 2022, ITEA - in collaboration with NXP - organised the online ITEA Smart Systems Engineering workshop to assess the research challenges and opportunities of the latest developments and innovations in Smart Systems Engineering. Over 120 researchers, (future) project leaders and developers from several disciplines registered for the workshop. The objectives of the workshop were to increase the understanding of smart systems engineering problems, to benefit from the experience of ITEA project partners and to identify important challenges that could lead to new research projects.

This one-day workshop was structured in three interactive sessions on 1) the complexity of applications, 2) standardisation and 3) AI application development – DataOps versus DevOps. Experts from Almende, Arlerion Technologies, Bosch, Daimler, Fraunhofer, Nokia, NXP, Philips, Siemens, Software AG, the University of Helsinki and Virtual Vehicle Research shared their insights and the online attendees had the opportunity to join the discussion.

The summaries and outcomes of the discussions of each session are presented in an ITEA Smart Systems Engineering workshop report intended to signal the areas of smart systems engineering where breakthroughs are needed and research efforts could be focused.

### 4.2.2 AI Call 2021 – Project leader briefing webinar (2 March 2022)

In order to support project leaders and technical contacts of the labelled AI Call 2021 projects in the smooth start of their projects, the ITEA Office organised a Project leader briefing webinar on 30 March. During this webinar, participants got an introduction to ITEA and its processes, including tips and tricks for a smooth project start. Next, they learned how to prepare a Change Request and how to prepare a project progress report or project review. At the end of the session, there was also time for a Q&A.

### 4.2.3 ITEA Call 2021 – Project leader briefing webinar (30 March 2022)

A similar briefing session was organised for the project leaders and technical contacts of the labelled ITEA Call 2021. This webinar was well-attended by 80 of our (new) Community members.

### 4.2.4 ITEA Smart Health customer workshop (15-16 June 2022)


After two online editions, ITEA organised its eighth international customer workshop in Eindhoven on 15 and 16 June 2022 and focused this year on Smart Health, an important challenge in ITEA. The workshop was co-organised with Atos, Barco, Esri Canada, NXP and Philips and, luckily, it was again possible to organise it as a physical workshop with some of the customers joining remotely. The event gathered 16 end-users of Smart Health solutions representing the points of view of the customers and around 20 solutions providers – large companies, SMEs and research organisations – of the Smart Health sector.

The workshop focused on:

- **Telehealth, remote interaction with patients/healthcare staff, patient monitoring at home, virtual care:**
  How to benefit from new means of communication, sensors and virtual reality to interact with patients remotely? What are the challenges of delivering good care without the patient having to come to the hospital?
- **Hospital optimisation – capacity monitoring, resource management, more patient-centric:**
  What are the needs in hospitals and how can IT contribute to increasing the quality and productivity of caregivers at the hospital?
- **Systems for digital pathology:**
  How can pathology be improved thanks to new IT systems? In which areas could these technologies (data processing, robotics, advanced reality) better support current human activities? How to introduce these technologies to the benefit of patients and medical staff?
- **Moving from care to prevention and more personalised healthcare:**
  How can personal data (genomics, sensor data) help to prevent potential diseases and how to adapt care to each individual? What are the current barriers and challenges when moving in this direction?
- **Data exploitation (with a good balance of ethical and privacy concerns):**
  How to exploit the new data sources related to healthcare? What are the opportunities (for care, for research and for economical optimisation) and the challenges? How to limit the security and privacy risks?

After all of these sessions, the workshop produced 15 interesting ideas that may lead to future ITEA RD&I projects. 12 Smart Health projects were submitted in the Project idea tool for the ITEA Project Outline Preparation Days 2022. In the end, seven Smart Health proposals were submitted as Project Outlines for ITEA Call 2022, of which six have been invited to submit a Full Project Proposal.

In addition to the emergence of these solid ideas and some collaborations, the workshop has helped to progress towards a shared vision of the research priorities to address the important transformation underway in the Smart Health sector. The participants have developed new connections that will be important as no single player can tackle the current challenges alone. In conclusion, this workshop was very valuable in fostering ITEA activity in the healthcare sector.


ITEA Smart Health customer workshop participants

### 4.2.5 ITEA PO Preparation Days 2022 – ITEA Call 2022 (13-14 September 2022)

ITEA Call 2022 for project proposals was launched on 13 September in conjunction with the ITEA Project Outline (PO) Preparation Days, which were held on 13 and 14 September in Helsinki. We were happy to finally get back together again with the ITEA Community after two years of meeting online. To celebrate this occasion, the PO Days were followed by an ITEA Family reunion on 14 and 15 September.

Building new projects and partnerships can best be done in a physical environment. This is what we have learned over the past two years. Nevertheless, the online events that were organised instead brought us some new insights as well. The ITEA PO Days 2022 event therefore combined the best practices of both online and physical events of the past in order for participants to get the most out of their event participation.

The ITEA PO Days are always fully-packed days. To prepare participants well in advance and to optimise the time for networking and consortium building during the PO Days, an online preparation session, 11 online country information sessions and an online project idea pitch session were organised prior to the physical event in Helsinki. The online Project idea tool and Partner search enabled the participants to explore the submitted project ideas and get in touch with potential partners in advance.

Alongside the plenary sessions in Helsinki, there was plenty of time for interaction during the project idea poster session and the many lively brainstorming and workgroup sessions. The group discussions resulted in 17 plenary project idea presentations. This year, a record number of Public Authorities attended the event and combined their online Country information session with a poster in a dedicated poster area at the event, informing participants about national priorities, eligibility criteria and funding outlooks.

This year, around 310 participants from 21 different countries participated in the online PO Days sessions and 229 joined the PO Days event in Helsinki. The Netherlands, Türkiye and Finland were the top three countries in terms of participation, closely followed by Germany. Canada was also again present with a large delegation in Helsinki.

With 52% returning participants and 48% newcomers, the ITEA PO Days confirm that the ITEA Community keeps growing and attracting new members while retaining the experienced project partners that can guide them.

## ITEA PO Days 2022 in numbers

- 310 total participants (online and/or physically present)
- 229 participants from 18 countries physically present in Helsinki
- 48 project ideas uploaded in the Project idea tool before the event
- 34 project ideas presented during the online project pitch session
- 32 project ideas presented in the poster session
- 17 final plenary project idea presentations

The project ideas were clustered by eight societal challenges, i.e. Smart cities, Smart communities, Smart energy, Smart industry, Smart health, Smart mobility, Smart engineering and Safety and Security. Although most challenges were well-covered, the number of Smart health project ideas was very high (12), showing the impact again of this year's ITEA Customer workshop on this topic. Like previous years, Smart engineering (7) and Smart industry (7) remain important topics for the ITEA Community, equalled by the number of Safety and Security (7) and Smart cities (6) project ideas.

## ITEA Family reunion

In the afternoon of 14 September and the morning of 15 September, we celebrated the ITEA Community getting back together again during the ITEA Family reunion. The programme consisted of inspiring sessions with SME Stars and well-respected ITEA Family members, a keynote speech ('Should innovation become maintenance?') by radiologist M.D. Sietske Rozie and the ITEA Awards of Excellence ceremony, combined with the opportunity to reunite for drinks, a dinner and a long-awaited chance to socialise.

## ITEA Awards of Excellence

On 15 September, during the 2022 ITEA Awards of Excellence ceremony in Helsinki, four projects were awarded for their impressive results with great benefits for industry and society: CyberFactory#1 (Award for Business Impact), IMPACT (Award for Innovation), PANORAMA (Award for Standardisation) and OPTIMUM (Award for Exceptional Excellence for outstanding results in all three categories).

Hosted by ITEA Vice-chairman Jean-François Lavignon, this ITEA Awards of Excellence ceremony not only presented the results of these projects but also provided a great opportunity to learn from the best as the project leaders and mentors shared what it takes to create an award-winning project and what it brings.

We are very proud that such impressive results were achieved within the ITEA programme, making the world a better, safer and healthier place.

## PO submission

After the ITEA PO Days, project consortia had two months to find the right partners and submit a Project Outline. By the deadline of 15 November, 32 Project Outlines had been submitted with a total effort of 3180 Person Years. After evaluation by our technical expert and the Public Authorities of the involved countries, 24 consortia were invited to submit their Full Project Proposal (FPP). The submission deadline for the FPPs is 13 February 2023.

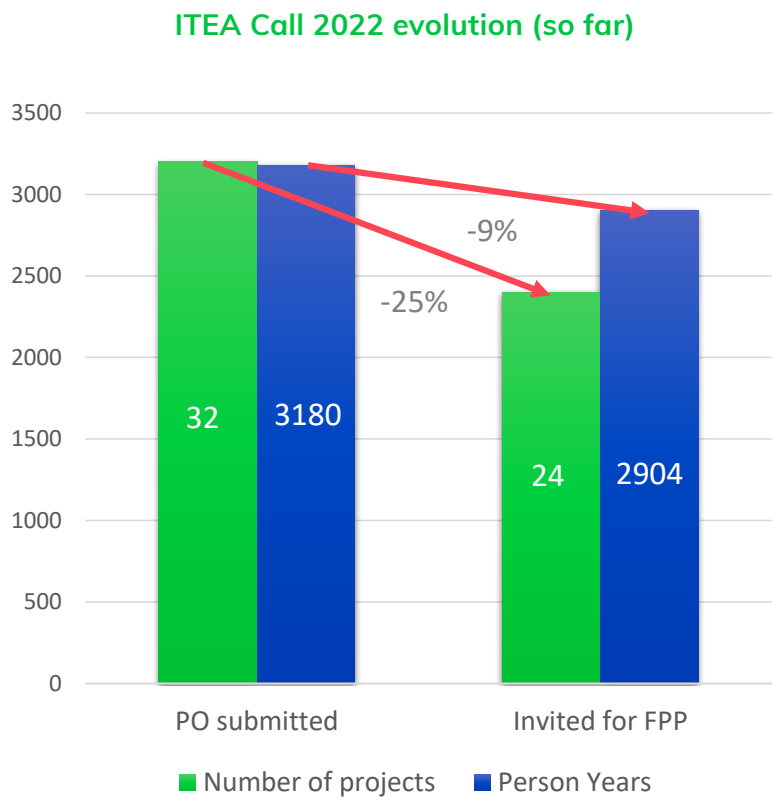



**Figure 5:** ITEA Call 2022 evolution (so far).

A detailed description of the ITEA Call progress and figures can be found in section **3.2 ITEA Calls progress** of this report.

### 4.2.6 Smart City Business Forum and Smart City Advisory Board meeting (14 November 2022)

On 14 November, ITEA again took part in the Smart City Business Forum organised by Cleantech Scandinavia and the Netherlands Enterprise Agency (RVO) in Barcelona. The Smart City Business Forum brought together around 400 decision-makers to discuss key challenges for the smart and climate-neutral city and focused on the private sector's role in achieving cities' smart and climate-neutrality targets and creating opportunities for public and private actors to connect, build partnerships and take steps in accelerating urban transformation. Zeynep Sarılar and Jan Jonker both took part as experts in two workshops.

Following the forum, the ITEA Smart City Advisory Board meeting took place in a hybrid manner with several participants gathering in Barcelona and several connecting online. In total, 12 city representatives and nine ITEA Community members were present. After an introduction round, four ITEA project partners shared their Smart City-related ITEA project outcomes and the city of the Hague presented their Living Lab Scheveningen. At the end, the ITEA Customer workshop concept was introduced.

It was good to meet again and connect the city representatives and the ITEA Community, and the first exchanges to further explore collaboration are being organised.

### 4.2.7 Cyber Security Advisory Board meeting (21 November 2022)

On 21 November, the Cyber Security Advisory Board gathered for the fourth time. The CySAB members were invited to discover the (expected) outcomes of five ongoing ITEA projects and to be informed of four new Cyber Security-related project proposals in the making for ITEA Call 2022. Finally, the first draft of the Cyber Security Advisory Board portal was introduced and some first feedback was discussed.

### 4.2.8 Eureka Clusters Sustainability Call 2022 – project leader briefing webinar (1 December 2022)

On 1 December, 25 project leaders and technical contacts from the labelled Eureka Clusters Sustainability Call 2022 projects with ITEA as the main Cluster joined a 1.5-hour informative webinar that was organised for them in order to support them with a smooth project start. For those who still had open questions after the webinar, one-on-one online meetings were set up with the ITEA Programme Coordinators to address project-specific issues.

### 4.2.9 External events and activities to promote ITEA

In addition to the ITEA and ECP events, the ITEA Presidium and the ITEA Office representatives also attended various additional external events and meetings to promote ITEA. Highlights included:

- **Applied AI Conference – AAIC (24-25 May 2022)**
  On 24 & 25 May, the Applied AI Conference took place online, focusing on the real-world impact of AI in this year's topics of sales and marketing. FFG, ITEA and Xecs were part of this conference and organised an online workshop to share more information about the opportunities to launch applied artificial intelligence projects under Eureka, the timeline of future Calls for projects and the funding conditions. In addition, Martin Treiber from IKANGAI, an experienced Eureka project leader (e.g. in the ITEA project SOLOMON), shared his experience with the audience.
- **Meeting with DLR (30 September 2022)**
  On 30 September, we visited the DLR Project Management Agency office to share experiences regarding the ITEA PO Days and to understand national priorities in order to see how we could improve collaboration between German industry and German Public Authorities.
- **Meeting with Vinnova (2 December 2022)**
  On 2 December, a meeting took place in Stockholm between the ITEA Presidium and Vinnova back-to-back with the ITEA Board meeting of 1 December. During the meetings, ITEA was introduced to several contacts within Vinnova, including Susanne Liljeblad, the new ITEA liaison, and Frederic Pillot, responsible for strategy regarding the Eureka Clusters. Furthermore, there was an introduction to AI Sweden and discussion took place on collaboration opportunities between the three organisations. Several activities have been agreed as follow-ups for collaboration; in the short term, this includes the organisation of an ITEA session during the online Sweden Innovation Days that will take place on 21-23 March 2023.

## 4.3 ITEA stakeholder satisfaction surveys

Together, the different stakeholders of ITEA create the strong ITEA Community that forms the central point of the ITEA programme. As quality is of paramount importance to ITEA, the opinions, ideas and experiences of the ITEA Community are highly valued as they allow ITEA to keep improving. To collect all of this information, ITEA conducts several surveys every year. Scores are measured on a scale of 5, where 1=very poor, 2=poor, 3=good, 4=very good and 5=excellent or an equivalent of these values.

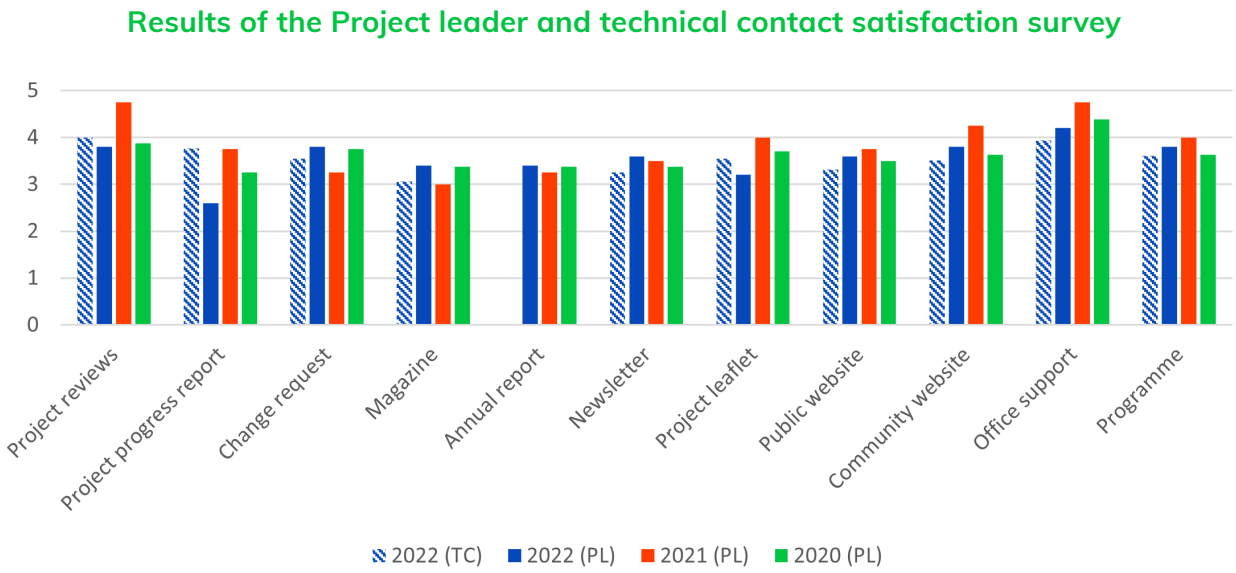



**Figure 6:** Results of the project leader (PL) satisfaction surveys, 2022 vs 2021 and 2021. From 2022 onwards, the results of the technical contact (TC) satisfaction survey are also included.

- **Project leader and technical contact satisfaction survey,** sent to project leaders and technical contacts at the completion of a project, covering all of the different processes of a project and the different elements of the ITEA programme. The 2022 results per topic are shown in comparison with 2021 and 2020 in the figure above. Most processes are well-appreciated; only the Project Progress Report (PPR) process received a low satisfaction score from the project leaders. A separate and more extended PPR survey has been set up to get more feedback on the issues and more suggestions for improvement. Several improvements are already in place and more will be implemented in 2023.

- **PO submission survey** (ITEA Call 2022), sent to all Project Outline (PO) leaders, technical contacts and country coordinators, covering all topics of the PO stage. Overall, the PO submission process was well-appreciated, as usual. PO leaders gave a score of 3.69. Technical contacts and others gave a score of 3.74. The (last-minute) coordination between (new) partners seemed to be the biggest challenge for both PO leaders and technical contacts. For next year, we will implement a full online PO submission process and review the required steps and information.

- **FPP submission survey** (ITEA Call 2021), sent to all Full Project Proposal (FPP) leaders, technical contacts, work package leaders and country coordinators, covering all topics of the FPP stage. The FPP submission process was well-appreciated with another very high score of 3.82 from FPP leaders and 3.91 from the technical contacts. Alongside a lot of positive feedback, a few new PLs and TCs indicated that the portal was complex. For future Calls, the submission process will take place fully online, which will avoid confusion and possible duplications.

- **ITEA event surveys**, sent to all participants of an event:
  - *ITEA Smart Systems Engineering workshop*, sent to all registrants of the online session. Although it is more challenging with online events, the workshop received a good evaluation score of 3.5 and 83% would attend a similar workshop again, in which topics like AI methods, existing open-source software and energy-aware software could be relevant topics according to the respondents. More information about this workshop can be found in **Section 4.2.1**.
  - *ITEA Smart Health customer workshop*. The 2022 ITEA Smart Health customer workshop was a big success, with an evaluation score of 4.13, and all respondents see opportunities for their organisation thanks to the workshop. In the future, the workshop can still be improved by clarifying the problem statements better and strengthening the link between the (stories of the) panellists. In the end, seven Smart Health POs were submitted in ITEA Call 2022, of which six have been invited to submit their FPP by 13 February. More information can be found in **Section 4.2.4.**
  - *ITEA PO Preparation Days 2022*, sent to all PO Days participants who attended the event physically. After two online editions, we were finally able to get back together again for the PO Days 2022. It was already evident from last year's evaluations that there was a strong need to have the PO Days physically again. This has been confirmed by the survey; this year's PO Days were rated with a score of 4.0 compared to 3.4 in 2021.
    As it was the first time that we had an online pitch session prior to the event, the participants were also asked if they appreciated this; 59% of the respondents indicated that it was better this way than having on-site pitch sessions during the PO Days. We will therefore continue to do so in 2023.
    More information about this event can be found in **Section 4.2.5.**

The results of each survey are discussed within the ITEA Office and issues are resolved or further investigated. In this digital era in which you may receive surveys for (too) many interactions in which you are involved, ITEA promises that this is not only an administrative step but truly a way to make your voice heard in order to further improve the ITEA programme and facilitate your participation in successful projects.

## 4.4 ITEA media coverage

In 2022, ITEA and its projects were mentioned several times on external websites and in press publications. Thanks to the collaboration with the project leaders and partners of the award-winning projects CyberFactory#1, IMPACT, PANORAMA and OPTIMUM, the ITEA Awards of Excellence were well-covered. Improvements still have to be made as no national newspaper covered a news item on ITEA (projects).

In total, there were 34 publications published by 59 different sources.

We have excluded event announcements for the Eureka events, the ITEA customer workshop and the PO Days from this overview. The same goes for news messages about these events on our partner websites.

A full coverage overview can be found at: https://itea4.org/media-coverage.html

# Appendix A. Call statistics

## Call statistics per year

### ITEA 3 Programme + Joint Eureka Clusters Calls issued during ITEA 3

| Call | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEA 3 Call 1 | 47 | 257 | 341 | 312 | 105 | 11 | - | - | - | - | 1073 |
| ITEA 3 Call 2 | - | 67 | 316 | 428 | 320 | 64 | 2 | - | - | - | 1198 |
| ITEA 3 Call 3 | - | - | 105 | 364 | 400 | 264 | 6 | 1 | - | - | 1140 |
| ITEA 3 Call 4 | - | - | - | 80 | 410 | 514 | 375 | 44 | - | - | 1423 |
| ITEA 3 Call 5 | - | - | - | - | 40 | 287 | 359 | 305 | 73 | - | 1064 |
| ITEA 3 Call 6 | - | - | - | - | - | 64 | 211 | 235 | 149 | 1 | 659 |
| ITEA 3 Call 7 | - | - | - | - | - | - | 48 | 266 | 300 | 251 | 866 |
| AI Call 2020 | - | - | - | - | - | - | 42 | 90 | 90 | 37 | 259 |
| Grand total | 47 | 324 | 762 | 1184 | 1275 | 1204 | 1044 | 941 | 612 | 289 | 7681 |

### ITEA 4 Programme + Joint Eureka Clusters Calls issued during ITEA 4

| Call | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | Total |
|---|---|---|---|---|---|---|---|---|---|
| ITEA Call 2021 | 136 | 608 | 690 | 491 | - | - | - | - | 1925 |
| AI Call 2021 | 114 | 187 | 168 | 40 | - | - | - | - | 509 |
| Sustainability Call 2022 | - | 68 | 94 | 83 | 11 | - | - | - | 257 |
| Grand total | 250 | 863 | 952 | 614 | 11 | - | - | - | 2690 |

**Table 3:** Participation in Person Years per Call per year as of 31 December 2022. Effort based on latest FPP. Projects from Joint Calls have ITEA as the main Cluster. Projects with ITEA as a secondary Cluster are not taken into account.

# Call statistics per country

## ITEA 3 Programme + Joint Eureka Clusters Call issued during ITEA 3

| Call | AUT | BEL | CAN | DEU | ESP | FIN | FRA | KOR | NLD | POR | SWE | TUR | OTH | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEA 3 Call 1 | 20 | 53 | 12 | 146 | 67 | 3 | 177 | 85 | 222 | - | 40 | 138 | 108 | 1073 |
| ITEA 3 Call 2 | - | 92 | 64 | 200 | 106 | 52 | 119 | 71 | 181 | - | 56 | 158 | 91 | 1198 |
| ITEA 3 Call 3 | 29 | 72 | 102 | 208 | 98 | 69 | 49 | 28 | 168 | 37 | 83 | 136 | 63 | 1140 |
| ITEA 3 Call 4 | 7 | 91 | 82 | 225 | 238 | 134 | 5 | - | 170 | 94 | 125 | 203 | 49 | 1423 |
| ITEA 3 Call 5 | 12 | 21 | 67 | 11 | 104 | 300 | 5 | 23 | 202 | 65 | 63 | 139 | 51 | 1064 |
| ITEA 3 Call 6 | 2 | 26 | 29 | 102 | 22 | 30 | - | 13 | 147 | 53 | 72 | 101 | 62 | 659 |
| ITEA 3 Call 7 | 20 | 25 | 78 | 90 | 132 | 78 | - | - | 159 | 44 | 68 | 133 | 18 | 866 |
| AI Call 2020 | - | - | - | 75 | - | 54 | - | 13 | 55 | - | - | 46 | 16 | 259 |
| Total ITEA 3 | 91 | 380 | 434 | 1058 | 766 | 721 | 354 | 233 | 1305 | 293 | 507 | 1054 | 458 | 7681 |

## ITEA 4 Programme + Joint Eureka Clusters Call issued during ITEA 4

| Call | AUT | BEL | CAN | DEU | ESP | FIN | FRA | KOR | NLD | POR | SWE | TUR | OTH | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEA Call 2021 | 55 | 94 | 75 | 91 | 246 | 199 | 69 | 39 | 206 | 246 | 92 | 457 | 55 | 1925 |
| Joint AI Call 2021 | 35 | 15 | - | 61 | - | - | - | 54 | 70 | 43 | 26 | 164 | 41 | 509 |
| Sustainability Call 2022 | 11 | 7 | 16 | - | 18 | - | - | - | - | 64 | - | 93 | 49 | 257 |
| Grand total | 101 | 116 | 91 | 152 | 263 | 199 | 69 | 93 | 276 | 354 | 118 | 714 | 144 | 2690 |

**Table 4:** Participation in Person Years per Call per country as of 31 December 2022. Effort based on latest FPP. Projects from Joint Calls have ITEA as the main Cluster. Projects with ITEA as a secondary Cluster are not taken into account.

*OTH (others) = Czech Republic, Cyprus, Denmark, Estonia, Great Britain, Hungary, Italy, Lithuania, Luxembourg, Norway, Romania, Singapore, Slovenia, Switzerland and Taiwan. NB: countries differ per Call.*

# Appendix B.

## How to access the online data

The ITEA Community website (https://itea4.org/community) gives access to restricted information for the ITEA Community.

### How to log in

The restricted ITEA Community website can be accessed at https://itea4.org/community. Your credentials for your ITEA account on the ITEA website – event registration, etc. – can also be used to access this restricted part of the website. An ITEA account can be created by clicking on 'Log in' and 'Create new account' in the top navigation bar on the ITEA website. Your company email address is used as a unique identification.

Specific access rights determine what is visible on these Community pages for each person. Depending on these rights, the following data can be accessed:

- Project management and project documents – e.g. PO, FPP, Project Progress Reports and Change Requests
- Evaluation, reviewing and all necessary documents – e.g. evaluation forms and review presentations
- Meetings and binders
- The ITEA calendar
- General ITEA information – e.g. guidelines, templates and corporate identity
- Contacts

# Glossary of terms

| | |
|---|---|
| **AI** | Artificial Intelligence |
| **B2B** | Business to Business |
| **CCFs** | Central Coordinating Functions |
| **CC** | Clusters Committee |
| **CC SG** | CC Support Group |
| **CySAB** | Cyber Security Advisory Board |
| **DSFM** | Demand-Side Flexibility Management |
| **ECP** | Eureka Clusters Programme |
| **EUR** | Euros |
| **FPP** | Full Project Proposal |
| **GHG** | Greenhouse Gases |
| **GIS** | Global Innovation Summit |
| **ICOG** | InterCluster Operating Group |
| **IoT** | Internet of Things |
| **ISO** | International Organization for Standardization |
| **IT** | Information Technology |
| **ITAC** | ITEA Authorities Committee |
| **JU** | Joint Undertaking |
| **KDT** | Key Digital Technologies |
| **KPI** | Key Performance Indicator |
| **M** | Million |
| **MAP** | Multi-Annual Plan |
| **ML** | Machine Learning |
| **MDD** | Major Depressive Disorder |
| **PA** | Public Authority |
| **PL** | Project Leader |
| **PO** | Project Outline |
| **PY** | Person Years |
| **PAC** | Public Authorities Committee |
| **QMS** | Quality Management System |
| **Q&A** | Questions & Answers |
| **R&D** | Research and Development |
| **RD&I** | Research, Development and Innovation |
| **SCAB** | Smart City Advisory Board |
| **SME** | Small and Medium-sized Enterprise |
| **STG** | (ITEA) Steering Group |
| **TC** | Technical Contact |
| **UAV** | Unmanned Aerial Vehicle |
| **V2X** | Vehicle-to-Everything |
| **VR** | Virtual Reality |

## Countries

| | |
|---|---|
| **AUT** | Austria |
| **BEL** | Belgium |
| **CAN** | Canada |
| **DEU** | Germany |
| **ESP** | Spain |
| **FIN** | Finland |
| **FRA** | France |
| **KOR** | South Korea |
| **NLD** | Netherlands |
| **OTH** | Other |
| **POR** | Portugal |
| **SWE** | Sweden |
| **TUR** | Türkiye |

ITEA 4

https://itea4.org

Σeureka

ITEA is the Eureka Cluster
on software innovation