



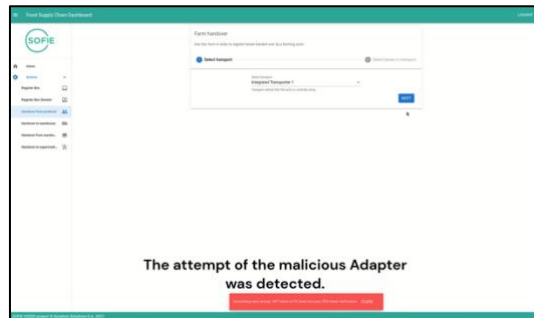
OCTOBER 2023

## 5<sup>th</sup> Newsletter

# H2020 FISHY

### WELCOME

This Newsletter summarizes all the progress carried in FISHY since January 2023 until the finalization of the project, in August 31<sup>st</sup>, 2023. It has been three years of intense work that has culminated in the complete integration of the FISHY platform and the deployment of FISHY in the three pilots.



For that reason, the task where FISHY has been mostly focused has been the deployment of FISHY in the three use case with the help of the FISHY Reference Framework (FRF). This work has included integration as well as validation tasks, all gathered in deliverable D6.4 and in form of video demos.

Another important achievement is the increase in the number of publications, both, scientific publications and general audience publications, achieving the KPIs proposed at the beginning of the project.

This is the 5th and last FISHY Newsletter. Stay tuned to our website, [fishy-project.eu](https://fishy-project.eu), LinkedIn @FISHY Project and Twitter @H2020Fishy, for last updates.

### FISHY TECHNICAL ACTIVITIES

In February 2023, WP2, WP3 and WP4 were ended and then all the tasks related to these workpackages have been finalized in February 2023 and materialized in deliverables D2.4, D3.4 and D4.4.

In D2.4 the final FISHY architecture for IT-2 was presented, including the last updates in terms of components that were postponed in IT-1 to be included in IT-2, such as Trust Monitor and Smart Contracts; as well as design improvements and new added tools.

Also in parallel D3.4 and 4.4 described all the integration of the Trust Manager and Security and Certification Manager modules respectively, both internally and with the rest of FISHY modules in the FISHY Reference Framework.

Another important technical achievement in these last months of project is the whole



- integration of the FISHY platform, also captured in deliverable D5.2 released in April 2023. In this deliverable all the tasks of integration including the deployment of components in the FRF and the connection between components inside and outside the FRF are described. Also, it is important to remark that the latest updates in the FISHY dashboard are explained, as well as the improvements in the IRO and the new intents created for each one of the use cases.

Apart from the deployment in the FRF of the whole FISHY platform, the specific deployments for each one of the use cases have been intense tasks during this period, reflected in deliverable D6.4. In this deliverable also the validation and demos are presented as well as a brief FISHY user manual.

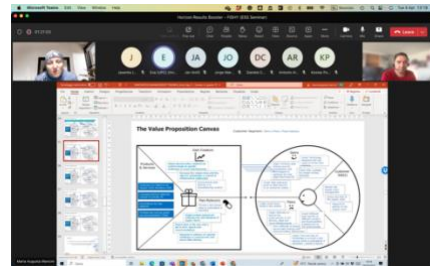
In early 2023, we also had our third Horizon Results Booster coaching with Maria Augusta Mancini, senior expert in the Horizon Results Booster. This last round focused on innovation management and our goal was to enhance the already mature exploitation work we have been developing so far, as part of the Go-to-Market service; and where we analyzed the three main KERs reflecting the FISHY platform, the vulnerability assessment tools, and the IRO. See <https://fishy-project.eu/key-exploitable-results> (complemented by a series of pitch materials for each of the seven KERs).

### FISHY EXPOSURE

In this period a strong final effort in dissemination and communication has been fueled, in terms of Final Marketing material. This final marketing material has included a new White paper, a final press release as well as nine blog entries. Also fruit of the maturity of the project the number of scientific publications has been increased, achieving 18 conference and 8 journal papers. Finally, it is also worthwhile to remark the 4<sup>th</sup> FISHY workshop and the Summer Camp co-located with the DRCN conference in April 2023. The summary of these activities is:

#### EVENTS

- On April 4, FISHY had its third meeting with the Horizon Results Booster, with the assigned representative, Maria Augusta Mancini, senior expert in the Horizon Results Booster. This last round focused on innovation management and our goal was to enhance the already mature exploitation work we have been developing so far, as part of the Go-to-Market service.
- 6<sup>th</sup> FISHY general assembly from April 18-19, 2023 in Vilanova i la Geltrú (Spain) The focus of this meeting was more related to integration workshops and hands-on session than theoretical presentation. Due to this approach FISHY was sped up,



and different aspects of the last integration tasks were solved.

- • Co-located in this GA, and in the framework of the DRCN 2023 conference, FISHY participated on April 20 in the IoSEC workshop, with an accepted paper (XLAB); as well as the FISHY Summer Camp was held with more than 15 participants. The topics of this summer camp were:
  - Raising cybersecurity awareness: practical examples, ATOS
  - Workshop on next-generation secured communications: SIA, TID+UC3M
  - Workshop on Intent-based networking and practical application, TUBS
  - Workshop on Wazuh monitoring and detection tool, XLAB
- 7<sup>th</sup> and last FISHY general assembly on June 27-28, 2023 in Maia (Portugal). It has been a very fruitful meeting, just closing many technical issues before the delivery of the last deliverables, and the preparation of the demos for the review. The GA was organized in different technical workshops.
- This last general assembly also included our third meeting with the Advisory Board on June 27. We received very good feedback and also it was a good rehearsal for our final review planed for October 10, 2023.



### PUBLICATIONS

Initially we planned a scheduling of bi-monthly blog publications, whereas in recent months we have increased the frequency of blog publications also including video-blogs:

- ***FISHY's Demo & Booth at the Barcelona Cybersecurity Congress 2023***<sup>1</sup>, Eva Marín (UPC), Joao Pita (XLAB), Jan Antic (XLAB), Antonio Álvarez (ATOS), Luis F. González (UC3M)
- ***Wrapping-up the Horizon Results Booster experience with innovation management training and a hands-on workshop***<sup>2</sup>, Joao Pita (XLAB)
- ***Video-blog: FISHY SADE use case***<sup>3</sup>, CAPGEMINI team.
- ***Video-blog: FISHY WBP use case***<sup>4</sup>, SONAE team.

<sup>1</sup> <https://fishy-project.eu/blog/fishys-demo-booth-barcelona-cybersecurity-congress-2023>

<sup>2</sup> <https://fishy-project.eu/blog/wrapping-horizon-results-booster-experience-innovation-management-training-and-hands-workshop>

<sup>3</sup> <https://fishy-project.eu/blog/fishy-sade-use-case>

<sup>4</sup> <https://fishy-project.eu/blog/wbp-trust-use-case>



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- **Video-blog: F2F use case demo**<sup>5</sup>, SYNELISIS team
- **Using blockchain technology to secure security information**<sup>6</sup>, Aggelos Orfanoudakis (SYNELIXIS).
- **FISHY liaisons and collaborations**<sup>7</sup>, Eva Marín (UPC)
- **Key Innovations in Supply Chain Cybersecurity and Resilience that Make Sense in Today's Industry**<sup>8</sup>, Joao Pita (XLAB)
- **Video-blog: SIA-FRF**<sup>9</sup>, UC3M team.

Two additional blog posts are going to be released before our final review, stay tuned to our social media:

- **Video-blog: TIM**
- **Last blog post gathering the final results of the project.**

Also, in this last period FISHY has produced a second White Paper<sup>10</sup>, updated pitch and deck material<sup>11</sup> and a third press release<sup>12</sup>.

From the point of view of the scientific publications, FISHY efforts have successfully produced one journal, and six conference papers, and two posters published; as well as one conference paper accepted. Check out all our scientific publications in <https://fishy-project.eu/publications>:

- Conferences:
  - “A data infrastructure for heterogeneous telemetry adaptation. Application to Netflow-based cryptojacking detection” by Alejandro Moreno (ATOS), Antonio Pastor (TID), Ignacio D. Martínez-Casanueva (TID), Daniel González-Sánchez and Luis Bellido Triana, in the 26th Conference on Innovation in Clouds, Internet and Networks, ICIN 2023, on March 2023.
  - “Security in DevSecOps: Applying Tools and Machine Learning to Verification and Monitoring Steps” by Matija Cankar, Nenad Petrovic, Joao Pita Costa, Ales Cernivec, Jan Antic, Tomaz Martincic, Dejan Stepec from XLAB, in the ICPE '23: ACM/SPEC International Conference on Performance Engineering, on April 2023.

<sup>5</sup> <https://fishy-project.eu/blog/f2f-use-case-demo>

<sup>6</sup> <https://fishy-project.eu/blog/using-blockchain-technology-secure-security-information>

<sup>7</sup> <https://fishy-project.eu/blog/fishy-liaisons-and-collaborations>

<sup>8</sup> <https://fishy-project.eu/blog/key-innovations-supply-chain-cybersecurity-and-resilience-make-sense-todays-industry>

<sup>9</sup> <https://fishy-project.eu/blog/secure-infrastructure-abstractionsia-fishy-reference-framework-frf>

<sup>10</sup> <https://fishy-project.eu/promotional-material/fishy-white-paper-2>

<sup>11</sup> <https://fishy-project.eu/promotional-material/fishy-pitch-deck>

<sup>12</sup> <https://fishy-project.eu/news-events/3rd-fishy-press-release>





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- “Runtime Security Monitoring by an Interplay Between Rule Matching and Deep Learning-Based Anomaly Detection on Logs” by Jan Antić (XLAB), Joao Pita Costa (XLAB), Aleš Černivec (XLAB), Matija Cankar (XLAB), Tomaž Martinčič (XLAB), Aljaz Potocnik (XLAB), Hrvoje Ratkajec (XLAB), Gorka Benguria Elguezabal, Nelly Leligou (SYNELISIS), Alexandra Lakka (SYNELISIS) and Ismael Torres Boigues, in the DRCN 2023 conference, in April 2023.
- “An NIDS for Known and Zero-Day Anomalies” by Ayaz Hussain, Francesc Aguiló-Gost, Ester Simó Mezquita and Xavi Masip, in the DRCN 2023 conference, in April 2023.
- “MONCHi MONitoring for Cloud-native Hyperconnected Islands”, by Dulce N. de M. Artalejo, Ivan Vidal, Francisco Valera, and Borja Nogales from UC3M in the ASMTA and EPEW 2023 (EPEW workshop), in June 2023.
- “A Model for Automated Cybersecurity Threat Remediation and Sharing”, by Francesco Settanni, Leonardo Regano, Cataldo Basile and Antonio Lioy from POLITO in SecSoft 2023, June 2023.
- Posters:
  - “Providing Secure NFV Multi Site Connectivity Services”, by Jose Manuel Manjón Cáliz (TID) and Borja Nogales (UC3M), in [EuCNC & 6G Summit](#), June 2023.
  - "A Multi-domain Testbed for Collaborative Research" by Ivan Vidal (UC3M), Luis F. Gonzalez (UC3M), Francisco Valera (UC3M), Borja Nogales (UC3M), Raul Martin (UC3M), Dulce Artalejo (UC3M), Diego R. Lopez (TID), Jose M. Majon(TID) and Antonio Pastor (TID), in the IEEE Conference on Sensing, Communication and networking (SECON) conference.
- Journals:
  - “A Link-Layer Virtual Networking Solution for Cloud-Native Network Function Virtualisation Ecosystems: L2S-M” by Luis F. Gonzalez; Ivan Vidal; Francisco Valera; R.Martin; D. Artalejo from UC3M, in Future Internet (MDPI), in August 2023.

FISHY also has the next paper accepted:

- "Scaling Serverless Functions in Edge Networks: A Reinforcement Learning Approach" by Mounir Bensalem, Erkan Ipek and Admela Jukan from TUBS, submitted to IEEE Globecom 2023 conference.





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MORE INFO

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[@ FISHY Project](https://www.linkedin.com/company/fishy-project)



[@FISHY H2020](https://www.youtube.com/channel/UCFISHY_H2020)



[H2020-FISHY](https://github.com/H2020-FISHY)



[FISHY H2020 project](https://zenodo.org/record/7444441)

