



European Anti-Cybercrime Technology Development Association (EACTDA)

At CEPOL Research and Science
Conference 2022 MRU, Vilnius





Key message(s) – I of IV

- **EACTDA** can contribute to a safer Europe by delivering **fully-tested** and **operational-ready software tools** with **no license cost** and **access to the source code** for EU public security practitioners.
 - EACTDA is an **end-user driven association**, as end-users define and prioritise their needs and evaluate the results.
 - EACTDA facilitates the **uptake of results coming from research projects**.
 - EACTDA focuses on **product (software tools) development**, and
 - **collaborates with other relevant entities that are willing to offer their technologies and/or the complementary and necessary services** (e.g., training, consulting, maintenance&support).
 - EACTDA currently has **end-user members from 9 EU MS** and is **actively looking to increase this to as many EU MS as possible**.

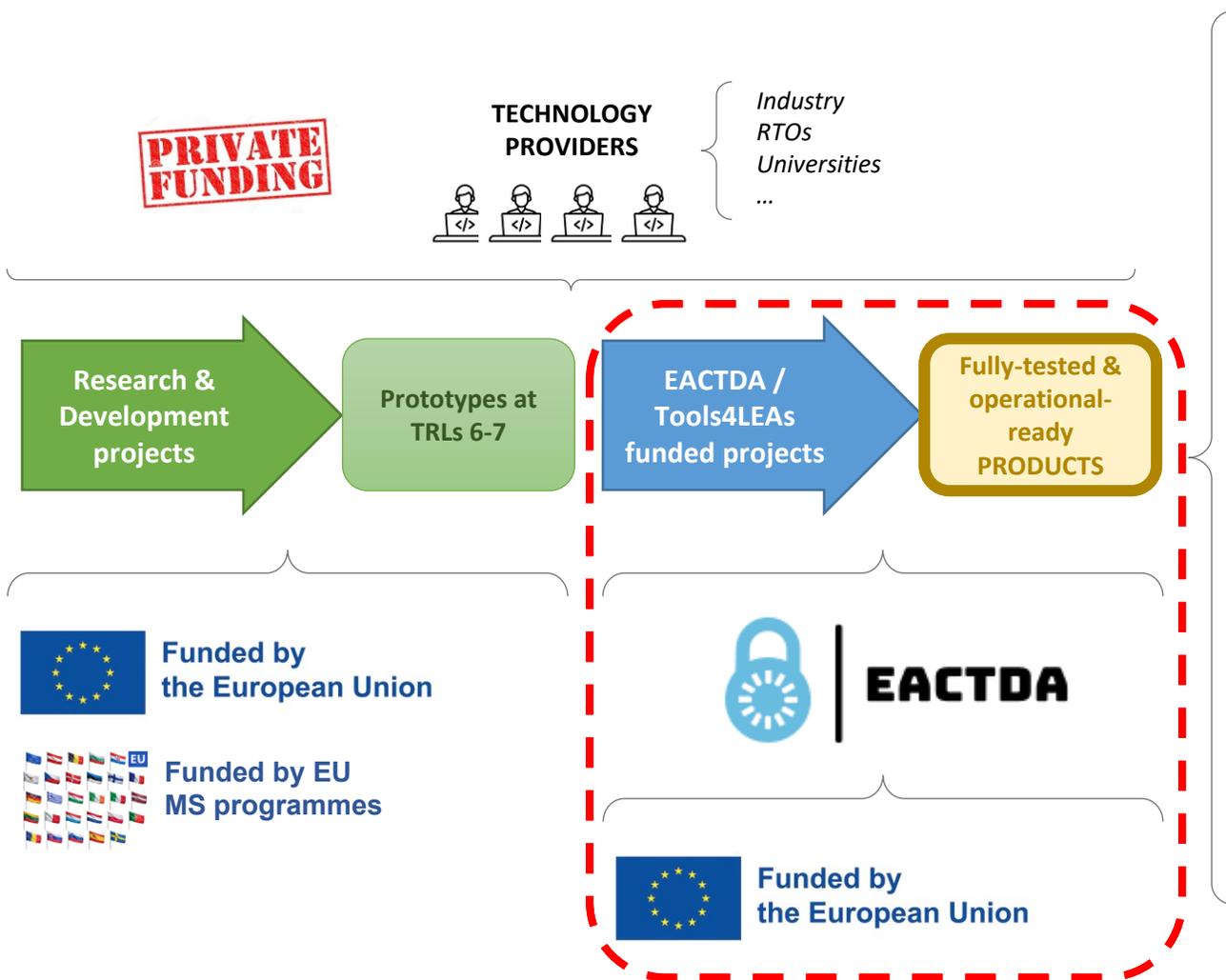


Key message(s) – II of IV

- EACTDA offers a **new exploitation path** to **Technology Providers that own software tool(s)** that is(are) **at TRLs 6-7** and that is(are) of the interest of European public security practitioners:
 - To enhance the prototype(s) so that they become **fully-tested** and **operational-ready** software tools/solutions.
 - EACTDA funds up to **90% of the personnel costs and fully covers all other costs** of these “last-mile” development projects.
 - The final results will then have **two exploitation paths**:
 - **One for European public security practitioners**, to which results will be provided at **no license costs** and with **access to the source code**.
 - **Another one for any other potential customer**, for which there are **no limitations**.
 - **Licensing scheme** is as follows:
 - The Technology Provider(s) license to EACTDA their results (**background**).
 - EACTDA owns the results of the “last-mile” projects (**foreground**) and licenses back to the technology provider(s) these results.
 - **End-users as prescribers**: end-users define and prioritise their needs, therefore decide about which projects should be funded, they evaluate the results, and they might end-up adopting and using the results.



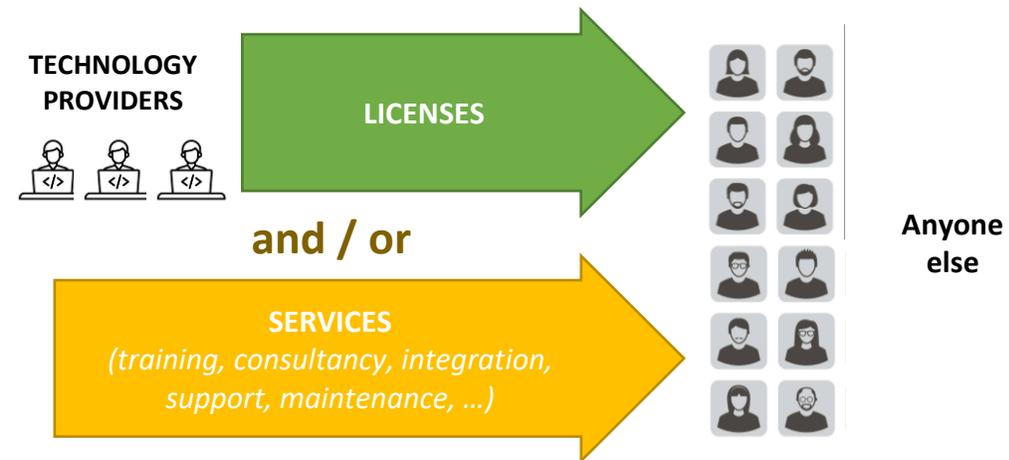
Key message(s) – III of IV



A)



B)



Key message(s) – IV of IV

- If you are a **Ministry of Interior or a EU Members State national Law Enforcement Agency** of a country that is currently not represented within EACTDA members...

As of June 2022 there are EACTDA end-user members from:

- | | | |
|------|------|------|
| • PT | • SE | • NL |
| • ES | • FR | • DE |
| • BE | • FI | • MT |

- Or if you are a **Technology providers** willing to offer your background technologies under EACTDA licensing conditions...



The need

What does EACTDA try to address?

- To **facilitate market uptake** of technological solutions **from research to operational use by European public security practitioners**



A well-known challenge: The “Valley of death”

Research projects deliver in most cases **technologies that are not mature enough** as of to be ready to be directly adopted by the end-users. In many occasions, even the advanced prototypes that have been tested and evaluated in operational environments, are **not ready to be adopted by the end-users as-is**.

In the case of **software developments**, **some of the missing elements include**:

- The software being **fully tested and functional**, avoiding or minimizing and appropriately handling the errors, and being efficient and effective.
- The software being **user-friendly**, this is, simple from installation to interaction and to removal, easy to update (or auto-update), intuitive, aesthetically appealing, independent of third-party software, well documented, and well supported.
- The software being **fully compliant with the legal, privacy, and ethical** principles and obligations.
- The software having accompanying **educational and training materials and courses**.
- The software having **high-quality support, maintenance and evolution services**.
 - IDEA: a certification framework so that users can be certified as “experts”, and companies can be certified as “service providers” for training, consultancy, support, maintenance, etc.



The Association

What is EACTDA

- An **European non-for-profit association**.
- Currently has **29 members, 14 of which are end-users**.
- It is **“end-user” driven “by-design”**. End-users have **“veto rights”** over certain decisions.

EACTDA and the Tools4LEAs:

Conceived and part of EU Security Research programmes, with EU public security practitioners and EU Security Research projects in mind

2016

2020

2023



...



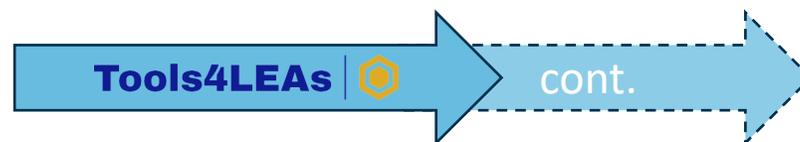
...

• Collaboration, support, contributions, ...

• Security Research results
• ~TRLs 6-7 at minimum



EACTDA



EU Public Security practitioners

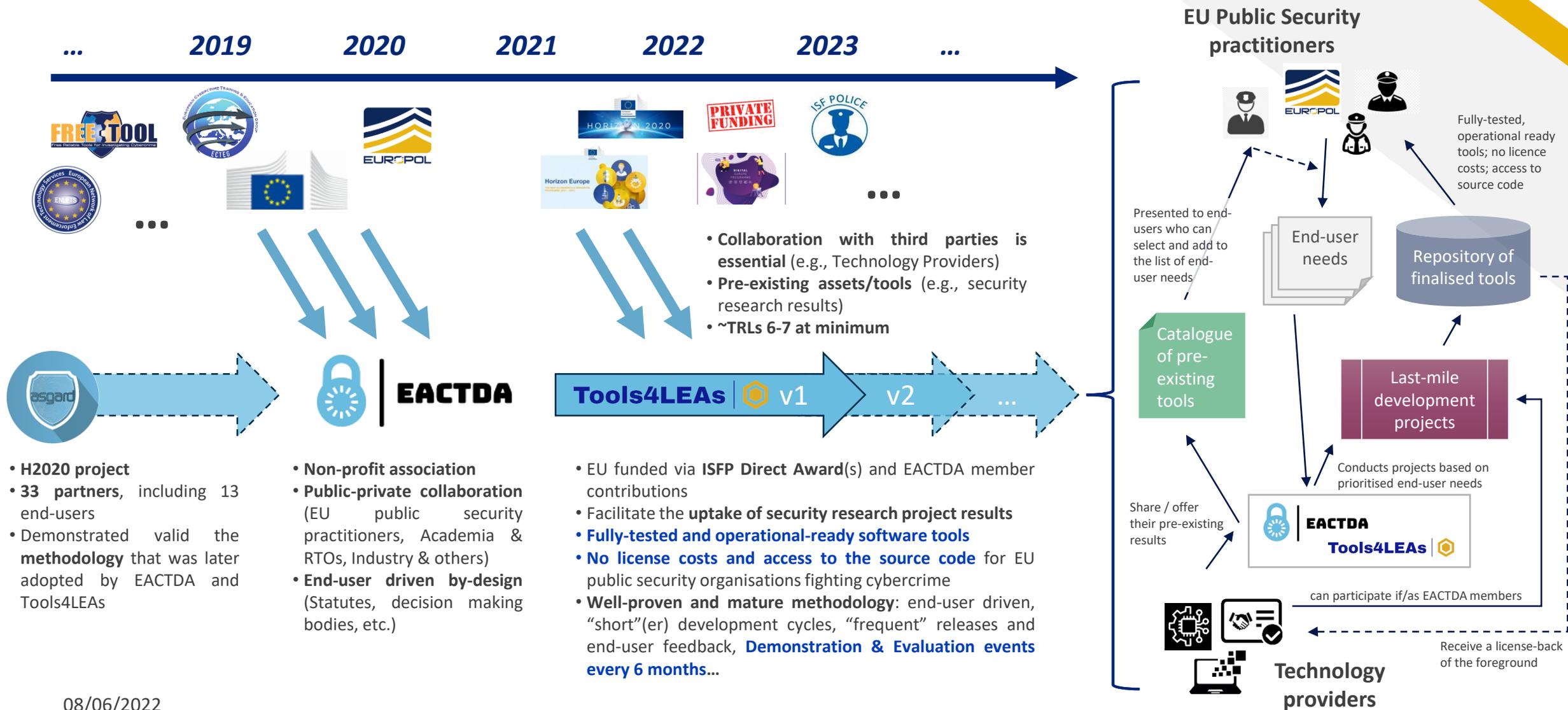


- H2020 programme funded research project
- 12 M Euro budget
- 33 partners
- 12 EU public security organisations
- End-user oriented
- **Novel methodology:** “short”(er) development cycles, “frequent” releases and end-user feedback, six-monthly “hackathons”,...
- **No license costs for EU public security organisations**

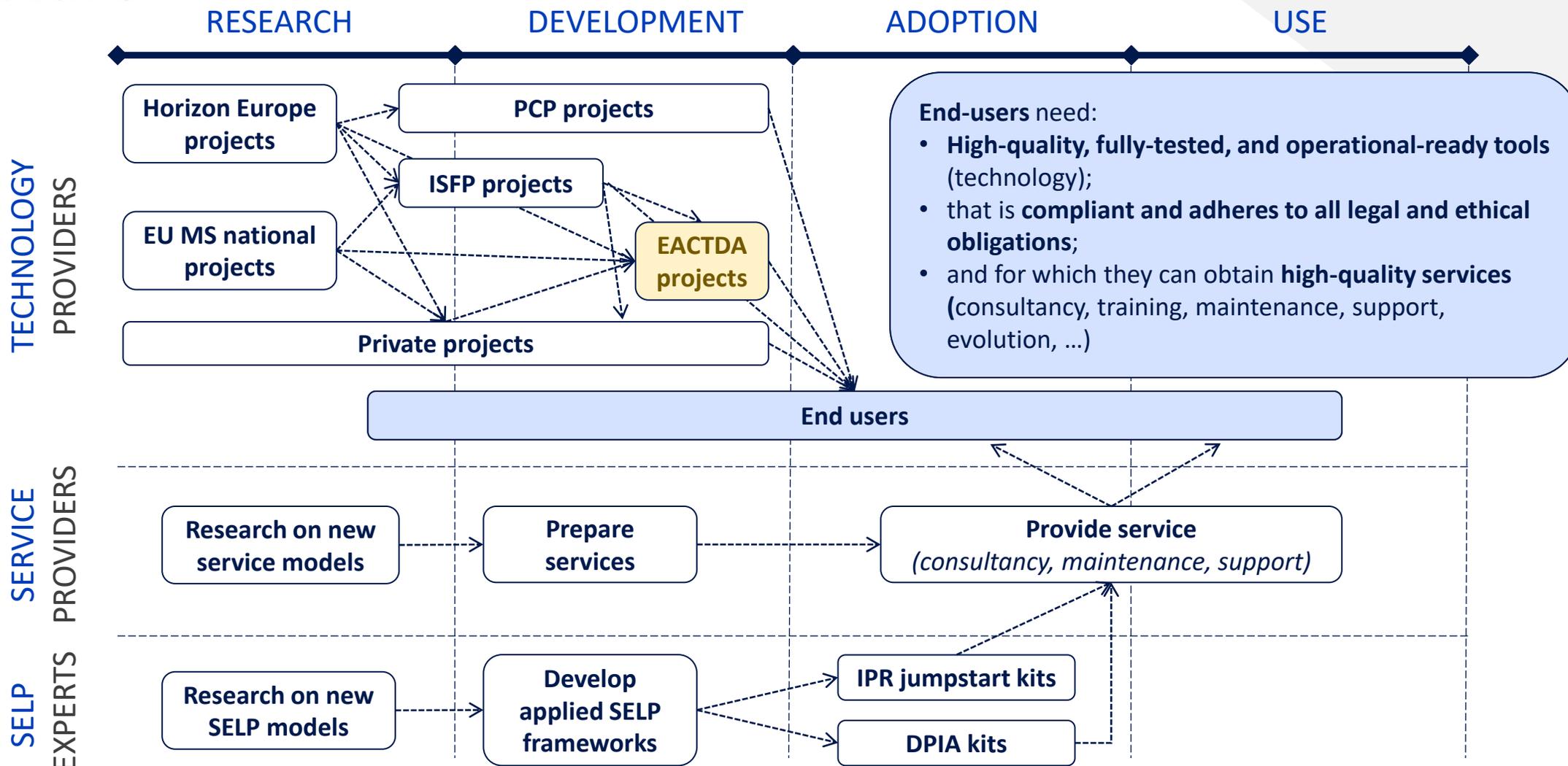
- Non-profit association
- Public-private collaboration (EU public security practitioners, Academia & RTOs, Industry & others)
- End-user driven

- ISFP Direct Award
- **No license costs and access to the source code for EU public security organisations**
- **Fully-tested and operational-ready software tools**
- End-user driven
- **Well-proven and mature methodology:** end-user driven, “short”(er) development cycles, “frequent” releases and end-user feedback, Demonstration&Evaluation events every 6 months...

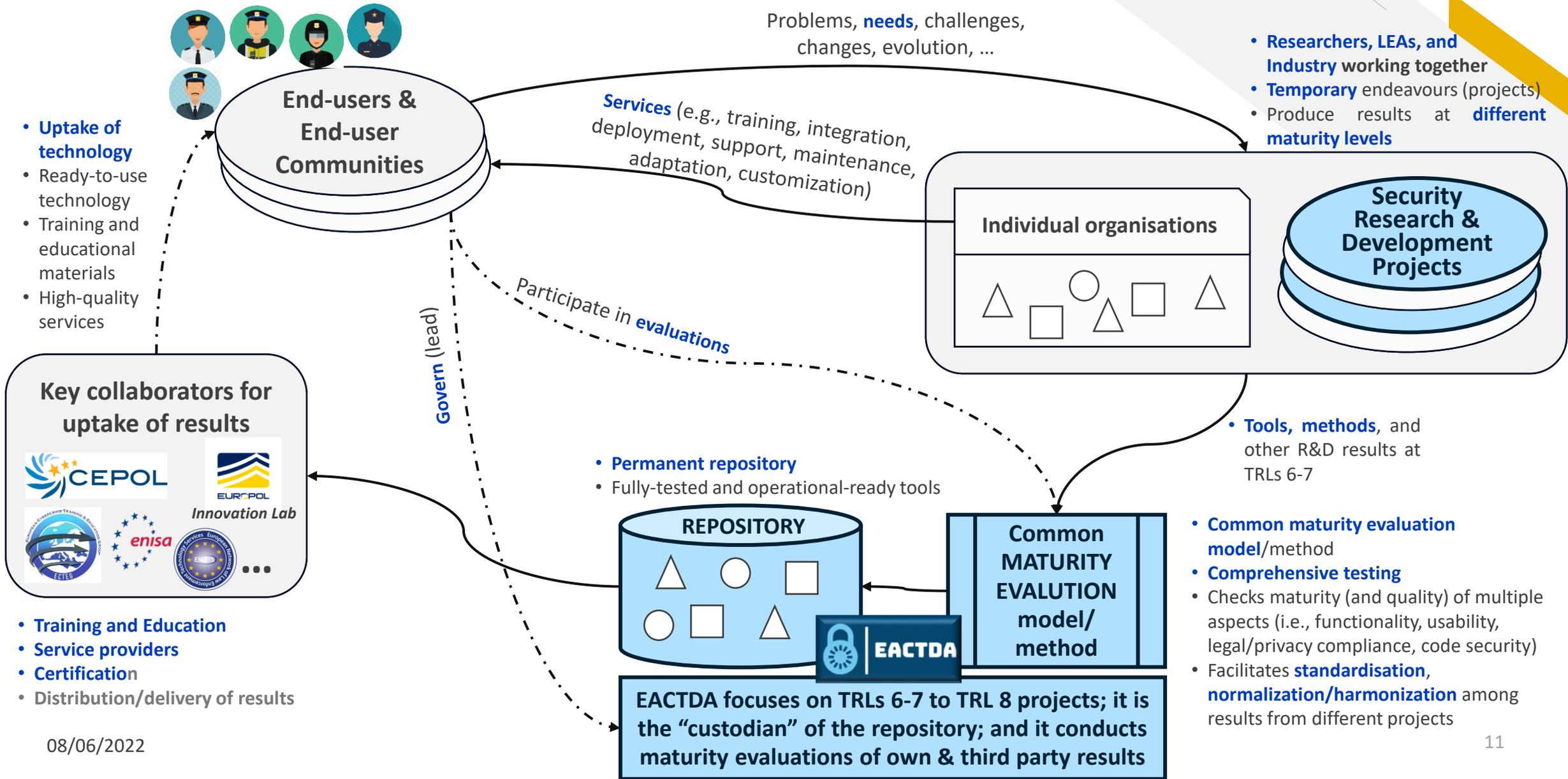
EACTDA in a nutshell



How does EACTDA fit in the overall picture



The role EACTDA aims to play



Value added

What benefits does EACTDA bring to its different stakeholders?



- **End-users:** Software tools for EU public security organisations that have no license cost, with access to the source code, that have been fully-tested, and that are operational-ready.



- **Technology Providers:** a new exploitation channel for results of research projects.



- **Service Providers:** The possibility of opening new market opportunities.



- **Policy makers:** contributions to the “policy feedback”, from Policy to project(s), back to policy, then to new project(s)...

Membership

Member categories and conditions

- **End-user driven “by-design”**
- **Two flavours: Full-members & Observer members**
- **3 categories of members:** end-users, RTO&Academia, Industry&Others
- **Open to new members, in a “per invitation only” approach** (candidates supported by active members)



Membership

- The Association is **“end-user” driven “by-design”** (in its Statutes and in the Internal Rules). End-users have “veto rights” over certain decisions.
- It is **intended to maintain a balance between end-user and non end-user members**. As of Apr’22 there are:
 - *29 members, 14 of which are end-users.*
 - *End-user members from: PT, ES, BE, SE, FR, FI, NL, DE, and MT.*
- EACTDA welcomes new members that:
 - Are **public security practitioners (end-users) from new EU MSs** (ideally, at least one from each EU MS).
 - Are technology providers (e.g., industry, academia, research organisations) **willing to make available their technologies to EU public security practitioners with no license cost** and with access to the source code.
- It is possible to be an **“Observer” member**, that **will not have voting and decision making rights**, but that **will participate in many of the activities of the Association**.

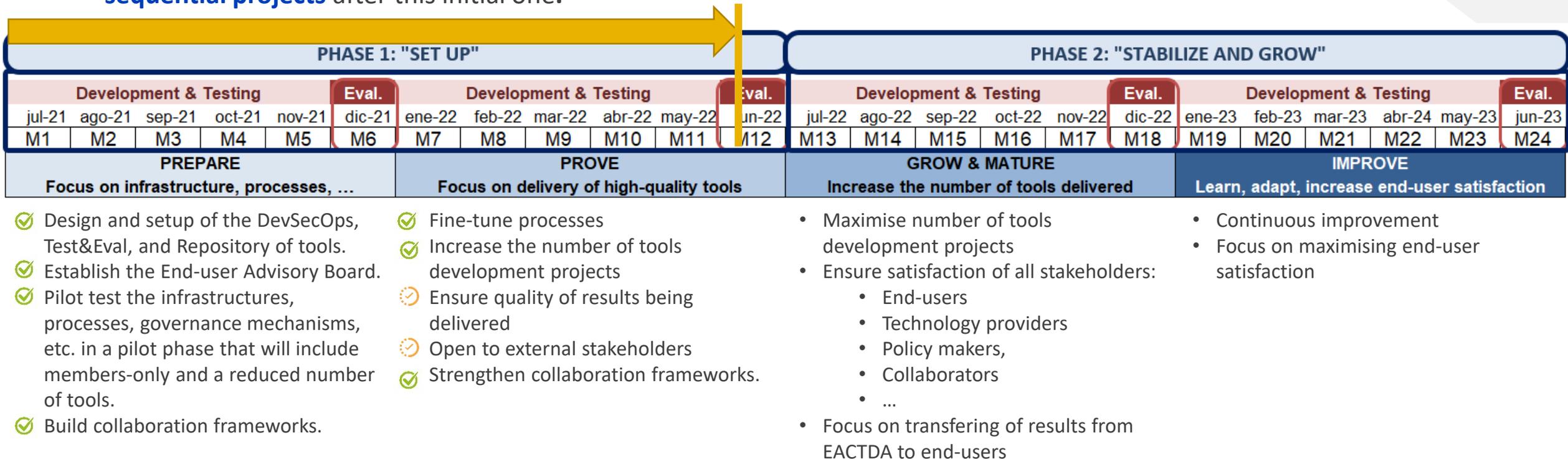
The Tools4LEAs | project

The instrument to implement EACTDA's mission

- **An ISF Police Direct Award**
- **A long-term initiative that...**
 - **starts with a 2 year duration project...**
 - **... and is planned to be followed-up by subsequent projects (v2, v3, ...)**

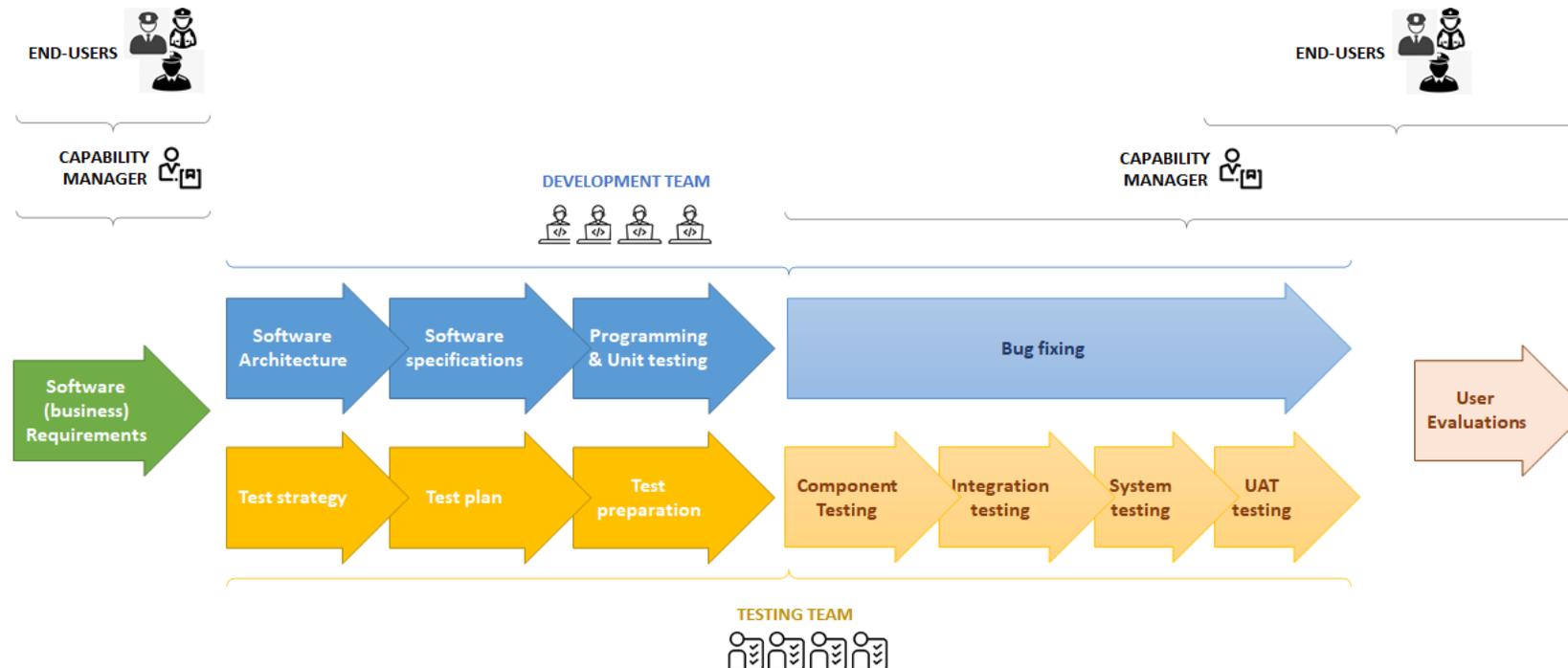
The **Tools4LEAs** | **project**

- The **1st Tools4LEAs project** lasts **24 months** and is structured in **2 phases**, all oriented towards building a “permanent” structure which should deliver on regular basis (6-monthly) **fully-tested**, and **operational-ready** software tools with **no license costs**
- However, **Tools4LEAs** aims to become a new and **long-lasting instrument**; therefore the plan is to have **multiple sequential projects** after this initial one.



Software Quality and Software Testing @ EACTDA and the Tools4LEAs

- To ensure the “fully tested” and “operational ready” condition, **end-users’ participation** combined with **high-quality development and testing processes** is essential.
- To ensure the **quality** of the processes, EACTDA and the Tools4LEAs project rely on the use of **standards** and best practices.



Software Quality and Software Testing @ EACTDA and the Tools4LEAs

- **ISO/IEC 25010:2011** Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — System and software quality models ([more info](#)).

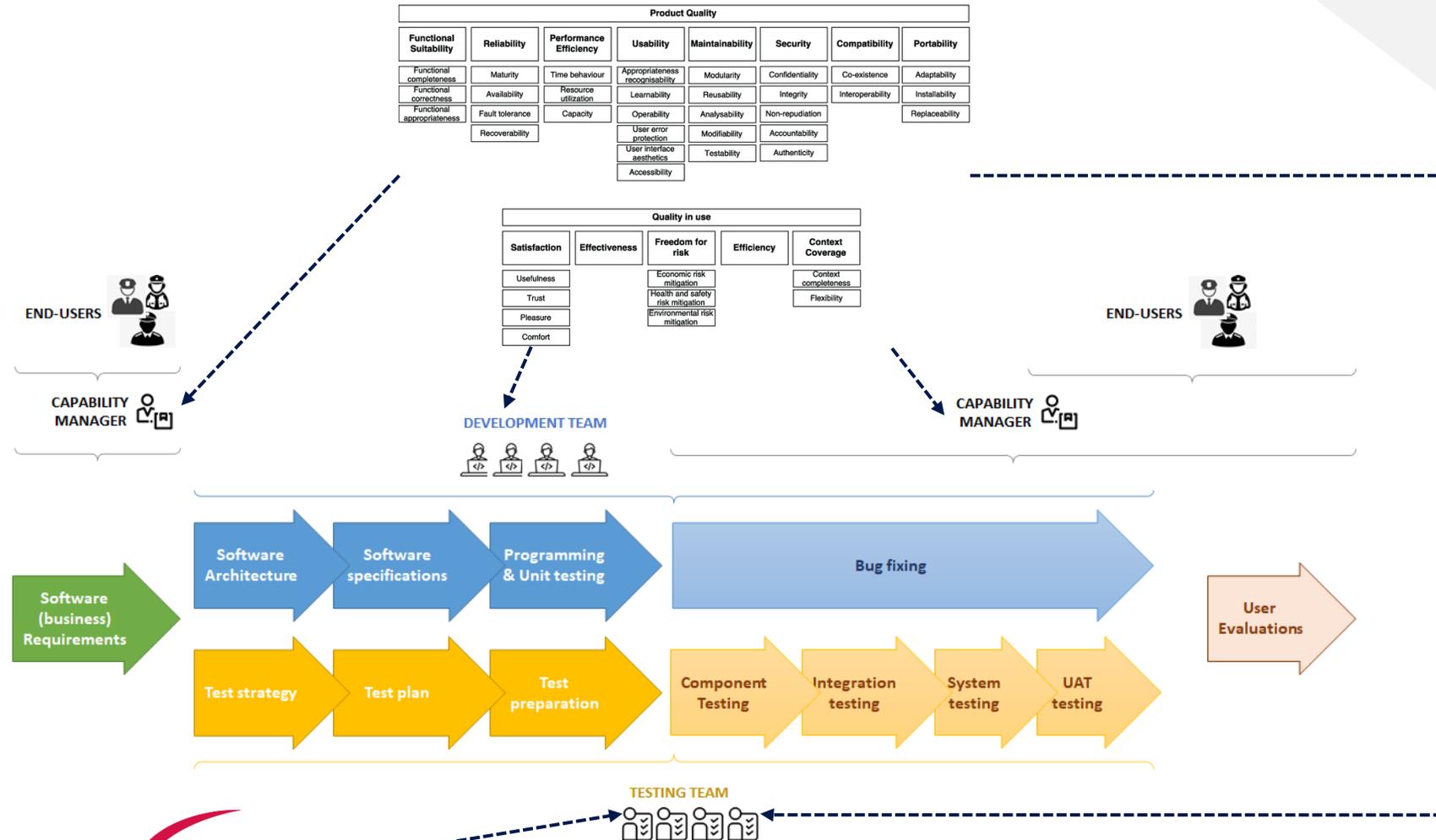
- **PRODUCT quality**
 - 8 characteristics
 - 31 subcharacteristics

Product Quality							
Functional Suitability	Reliability	Performance Efficiency	Usability	Maintainability	Security	Compatibility	Portability
Functional completeness	Maturity	Time behaviour	Appropriateness recognisability	Modularity	Confidentiality	Co-existence	Adaptability
Functional correctness	Availability	Resource utilization	Learnability	Reusability	Integrity	Interoperability	Installability
Functional appropriateness	Fault tolerance	Capacity	Operability	Analysability	Non-repudiation		Replaceability
	Recoverability		User error protection	Modifiability	Accountability		
			User interface aesthetics	Testability	Authenticity		
			Accessibility				

- **Quality IN USE**
 - 4 characteristics
 - 9 subcharacteristics

Quality in use				
Satisfaction	Effectiveness	Freedom for risk	Efficiency	Context Coverage
Usefulness		Economic risk mitigation		Context completeness
Trust		Health and safety risk mitigation		Flexibility
Pleasure		Environmental risk mitigation		
Comfort				

Software Quality and Software Testing @ EACTDA and the Tools4LEAs



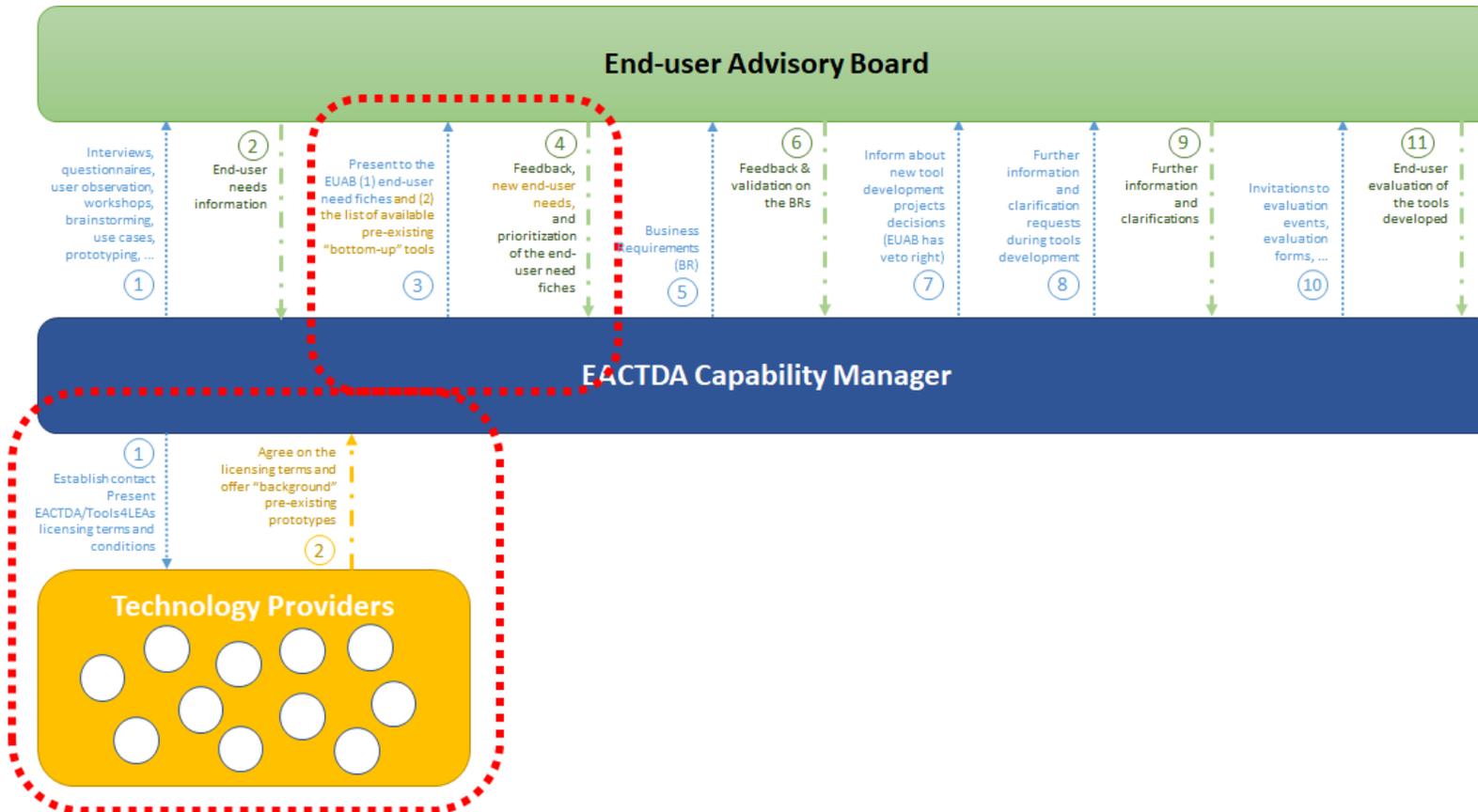
The End-User Advisory Board (EUAB)

- The Tools4LEAs' **tools development work plan** will be **end-user driven**.
- The project has an **End-User Advisory Board (EUAB)**, chaired by **Europol** and with the participation of multiple **EU MS LEAs**.
- The **EUAB** will **decide about the tool development roadmap** and it will have **veto right** over the **projects to be funded**.
- The EUAB will primarily **focus on two activities**:
 - Providing **inputs about end-user needs** and their priorities
 - **Evaluating the tools** once they have been developed (during and after the 6-monthly DEM&EVAL events)
- The **EUAB members** will be encouraged to **contribute** to the pool of needs in their individual professional capacity, **but they will not be responsible for collecting, documenting, distributing (etc.) all the needs that will be processed**.

End-User needs

Two approaches to identify end-user needs

- **“Top-down”** vs **“Bottom-up”**, which is the difference and why should we have the two of them?



- **“Top-down”**:

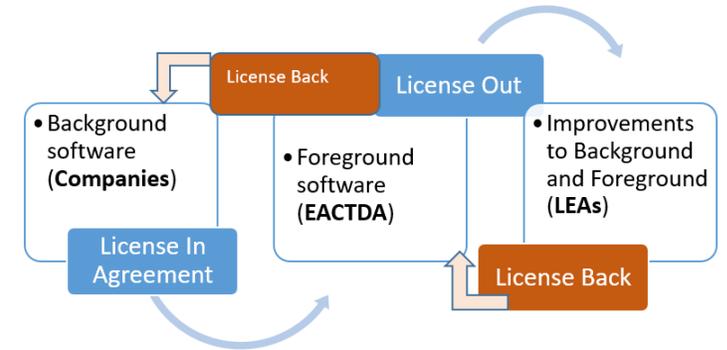
- We might not be able to identify existing **“background”** tools that can be used as a start point.
- If there is not a pre-agreement with the owners of the **“background”**, the **time to reach out the owners and reach a pre-agreement might delay the start** of the new tool development project(s). If no agreement is reached, we will not be able to use that background.

- **“Bottom-up”**:

- The **EUAB** might not be aware of some of the **pre-existing tools** that might be of their interest.
- There will be a **pre-agreement in place** with the owners of the background, thus **time-to-market should be faster**.

Licensing scheme

1. “Technology providers” (TP) sign a **“pre-agreement”** with EACTDA declaring their intent to offer/share some of their assets under the **EACTDA/Tools4LEAs licensing terms and conditions**.
2. TPs offer concrete pre-existing solutions under the conditions “pre-agreement”, which are included in the **“Bottom-up” list of pre-existing solutions**.
3. The End-User Advisory Board (**EUAB**) **prioritises all end-user needs**.
4. TPs owners of the Top-ranked end-user needs are contacted to launch **new tool enhance/development projects**.
5. EACTDA launches a **Request for Project Proposals**.
6. TPs submit their **proposals**.
7. Proposals go through the **Project Portfolio Management process** and, if approved, a **collaboration agreement** is signed between TPs and EACTDA.
8. TPs **license-in** their background to EACTDA.
9. EACTDA owns the **foreground** created during the project, which then **licenses-back** to the affected TPs.
10. The final product (background + foreground) is **licensed-out** by EACTDA to the end-users, with the condition that **any derivative work** has to be **licensed-back** to EACTDA.

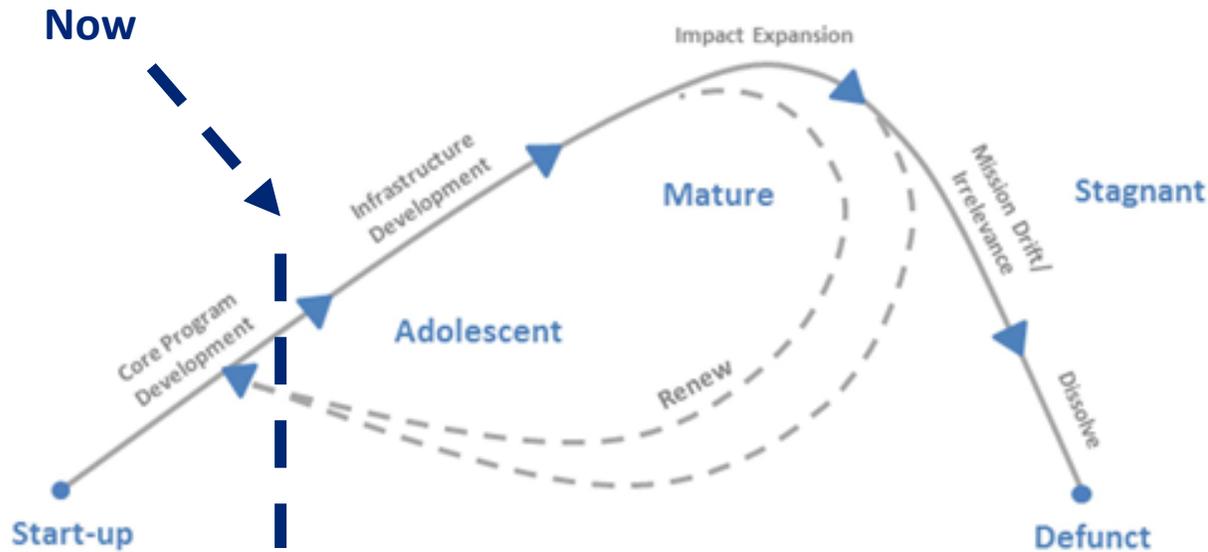


Status and next steps

Highlights

- **Founded in 2020**
- **Currently in “set up” phase**
- Started the **Tools4LEAs project** in July’21, a **Direct Award funded under the EU ISFP** programme.
- Planning to be **fully operational** and starting to **deliver value** to its members and all stakeholders **by mid-2022**.

Status and work plan for 2021-22



- **Q1'21:**
 - **Internal Rules**, policies, guidance and best practices, code of conduct, etc. completed
 - **Start hiring staff**, establishing the **office** for the Secretariat, **acquiring infrastructures**, ...
- **Q2&Q3'21:**
 - **Start the ISFP Direct Award project**
 - Start set-up activities
- **2022 till Q2'23:**
 - **Complete set-up activities**
 - **Start delivering new tools** to EU public security practitioners
 - Stabilize
 - Increase presence, membership, impact
- **Q3'23 onwards:**
 - **Launch Tools4LEAs v2**
 - Scale up, fine tune, adapt, improve, ...

Thank you for your attention!

- **More info at**

- <https://eactda.eu/>

- info@eactda.eu

- <https://tools4leas.eactda.eu/>



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