



Netherlands Forensic Institute
Ministry of Justice

DNAXs 2.0 project



**ISFP-2017-AG-FORENSIC -
DNAXs2.0**



Collaboration with international partners

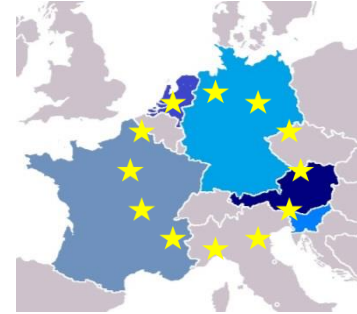
- Additional funding for research and development
- Enhance quality of software by using integration testing
- Develop DNAXs in a multi-lab tool for profile comparison/evaluation/interpretation
- Across laboratory validation
- Possibility to disseminate software to other forensic institutes

ISFP-2017-AG-FORENSIC - DNAXs2.0





Partner choice: Different languages, different demands
Excellent network (ISFG, EuroForGen, dna.bases)
Casework laboratories of different size
Law enforcement or academic



EUROFORGEN
Network of Excellence

dna.bases

End-users? Forensic DNA caseworkers

High demand for DNAXs-like tools

Partners represent end-users with role in across-Europe validation



Obstacles? Computer requirements: ⇒ Hardware for each partner in project
Expert personnel: ⇒ Software building expertise within NFI
⇒ All partners experienced in validations
⇒ Experienced in organizing workshops



Extending DNAXs to the needs of partners!

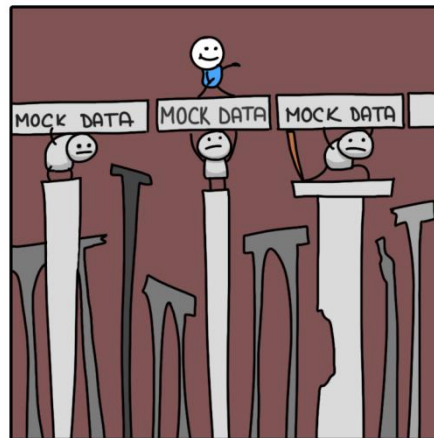
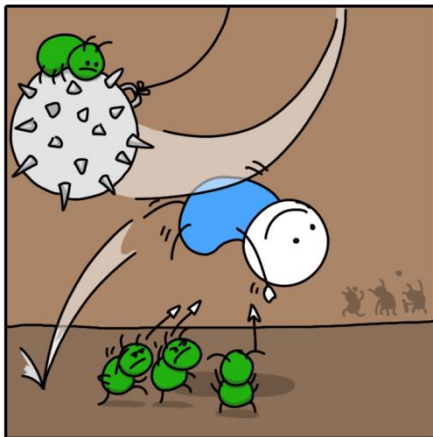
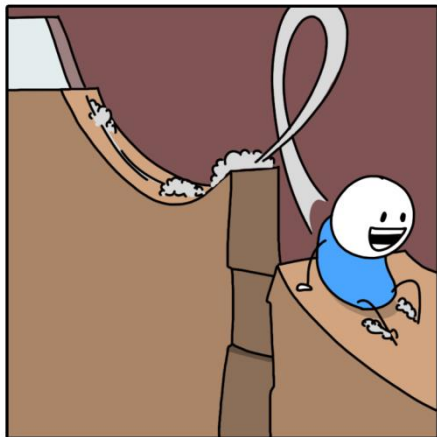
For instance:

- **Reporting**
- **Language**
- **Match matrix**
- **Input LIMS**
- **Output CODIS/SmartRank**
- **Visualization**
- **Statistics**
- **.....**



Building integration tests (TROI)

HAPPY FLOW



- ⇒ **Test interfaces between different modules**
- ⇒ **Automatically assess updates: save time, money**
- ⇒ **Optimize software flow**



Research

Statistical module
based on EuroForMix

- Stutter model
- Degradation model
- Sensitivity analysis
- # donors
- True/non-donors
- # replicates
- MLE
- (Deconvolution mode)

⇒ **Using purposeful mixtures, various kits (CE, MPS)**

⇒ **Guidelines / best practise**

⇒ **Statistical result & calculation time**



Across Europe validation

- ⇒ **Validation set provided by NFI**
- ⇒ **DNAXs in various conditions**
- ⇒ **Feedback (red & yellow cards) for broadened use**



Preparing a software manual

- ⇒ **Needed for accreditation and distribution**
- ⇒ **Team work: input different users needed**
- ⇒ **Also: website for FAQs and support**



Workshops and dissemination of software



Congresses within the 18-months:

- ISFG Sept 2019
- GRC June 2020
- ENFSI/EDNAP meetings

⇒ **Take responsibility towards forensic community**

⇒ **Also: publications, presentations, workshops**



Time lines

- Kick off meeting February 2019
- Pre validation meeting October 2019
- Validation period October 2019 – Q1-2020
- Dissemination workshops April/May 2020
 - Netherlands
 - Slovenia
- Website available soon
 - > Including presentations and video demonstration of the software