

Cyber Security Excellence – ein Produkt des Zufalls Joe Pichlmayr (Cyber Security Austria)



Industrial Security Tag
powered by Siemens,
IKARUS Security Software
und FH St. Pölten

SIEMENS





is a non-profit, independent and non-partisan association addressing cross-cutting security issues in IT/cyber security and critical/strategic infrastructures in Austria

our coreprojects

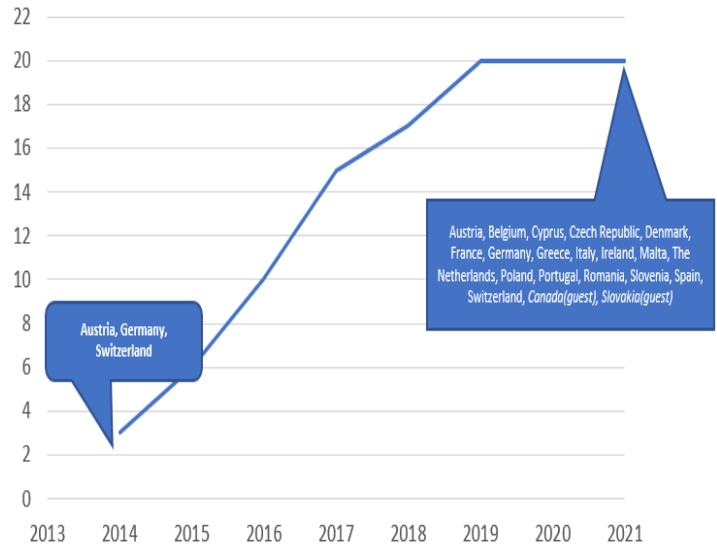
- Austria CyberSecurityChallenge
- EuropeanCyberSecurityChallenge
- openEuropeanCyberSecurityChallenge
- CyberSecurityQuizz Duell App
- Level 1
- NTC national trainings center
- VISP

Why the Hell a HackerChallenge ?



CyberSecurityChallenges

AustrianSuccessStory all over the world



Since 2011
~ 600 participants
2021

ACSC as reference model
since 2014
17.000 talents all over Europe 2021

Based on ACSC
20.000 Security Enthusiasts from all over world



2012- 2022



Successstory

AustriaCyberSecurityChallenge

2 x European Champion, 1x 3rd place

4 x successfull startups (one via A1 telekom - offensivity)

11 x largest Austrian Security-Talent Challenge

224 x Talents in ourCenter of Excellence

581 x media reports about ACSC

4.418 x participants in our challenges

More than 18.000 people tryed our Level1 challenges

CyberSecurity Excellence – a product of coincidence!!

Thoughts about sustainable structures for the
development of IT (security) excellence

Rising Demand for IT (Security) Experts

Rising Deficit of Experts/Expertise

- hypothesis:** There will be too few IT security specialists for the needs of our society !! Demand is increasing faster than our resources can be provided. Growing GAP!!
- consequence:** Less security, increasing risks, fewer projects, loss of competitiveness, project delays and loss of projects, reduced resilience, rising costs, etc
- vision:** Sustainable cooperation between public sector / companies with education / research sector to increase quality / quantity of graduates Institutional Knowledge Transfer - Business / Education

Expert Deficit ? Lack of Expertise ?

How bad is this going to be?

Digitalization of our societies includes a lot of chances...

No doubt - this chances should be taken ...

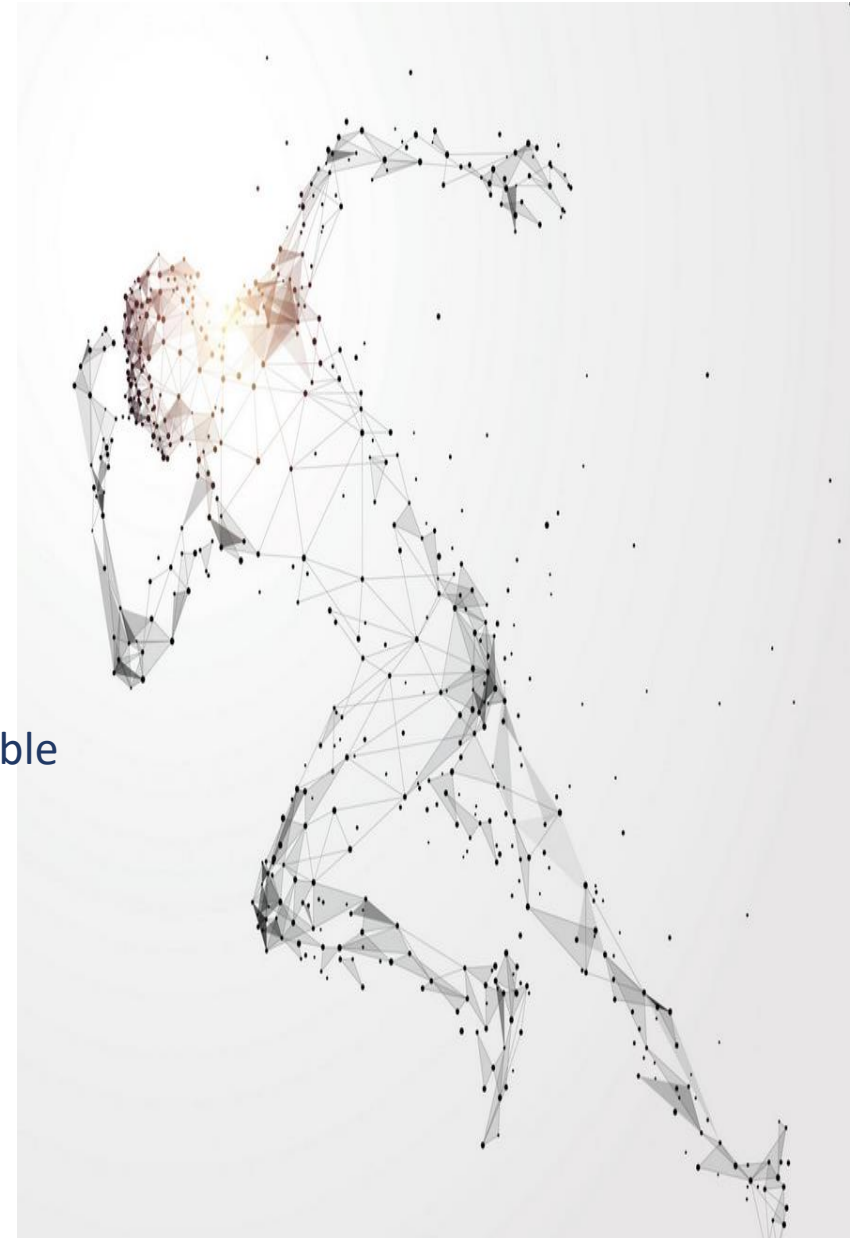
Digitalization of our societies includes a lot of risks...

No doubt - this risks have to be mastered...

For both, highly motivated and top qualified talents are indispensable

6 month course? AMS –Qualification Initiative ? Education Reform ?

To become a Security Expert it takes 8-10 years !!



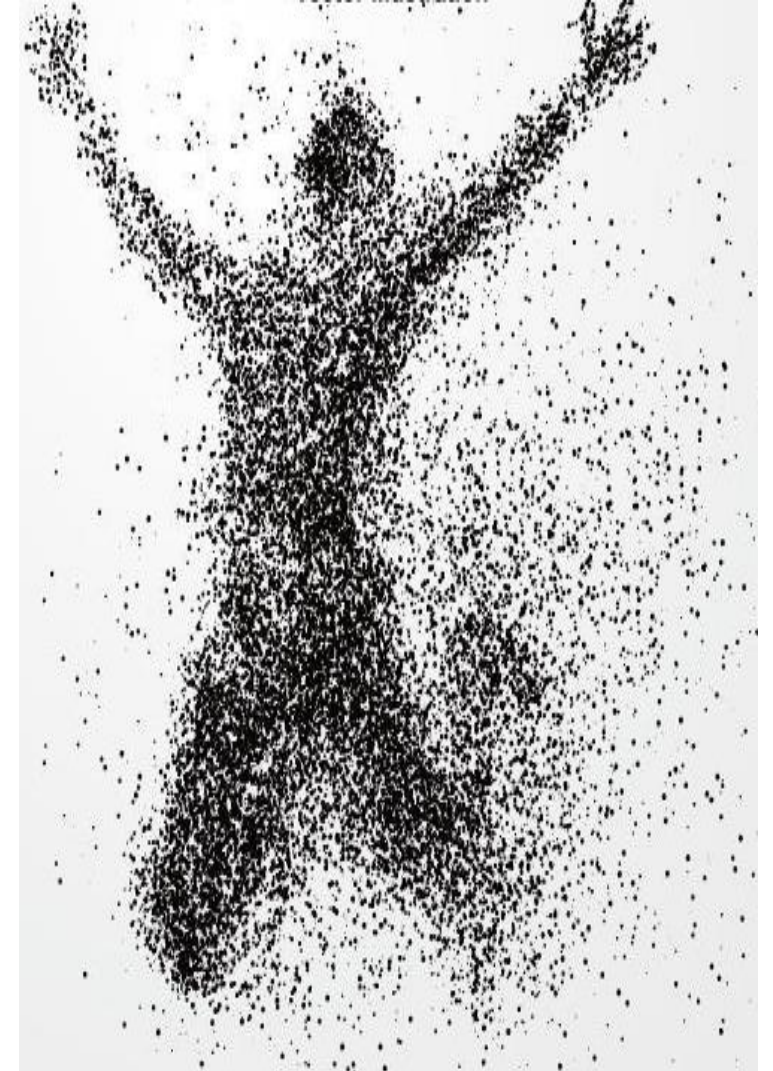
Security Excellence

Why we need it

Prevention of high sophisticated attacks –
- require advanced, teams and talent

High sophisticated teams and talents –
Require highly developed infrastructures

highly developed infrastructures–
Need a broad public support and society awareness



what makes it so challenging?

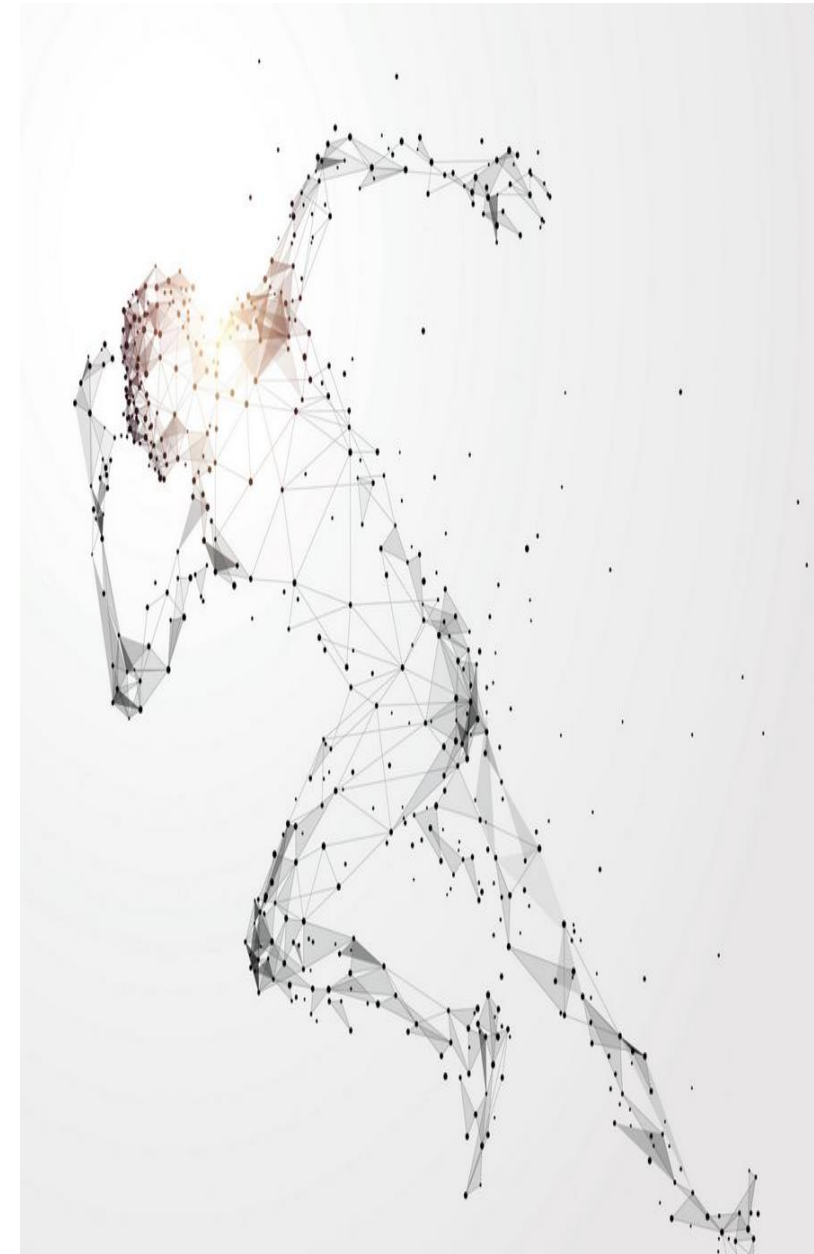
Educationsystem could not provide Teachers&Trainers.

Need for Mathematic-Teachers - Easy to cover !

Need for digital literacy /security experts Teacher – impossible to cover !

Our teacher education systems are not designed to redevelop teaching content every 3-5 years.

People who have these skills work in top management positions but are less likely to work as teachers



How to navigate the perfect storm ?

Rising Cyberthreats meets rising Skills Shortages

ubiquitous and pervasive

enormous technological changes

immense acceleration

interdisciplinary and highly complex

effects us on all levels, both directly and indirectly

we cannot escape this development

And many many others

Strategic

lose ability to respond with adequate strategies

increasing risk of total loss of control

irreparable / costly missdecissions

...

Tactical

rushed deployments

to less time for proper risk assessment

inability to remain aware of all threat activities

....

Operational

misconfigured Systems

lost ability to patch in time

inefficient monitoring of processes and procedures

...

Imagine...

... you have the potential to run 100m under 8 sec!

But there is no

- awareness for athletics
- no sport clubs, no trainers, no competitions
- no sport stadiums, no sponsors



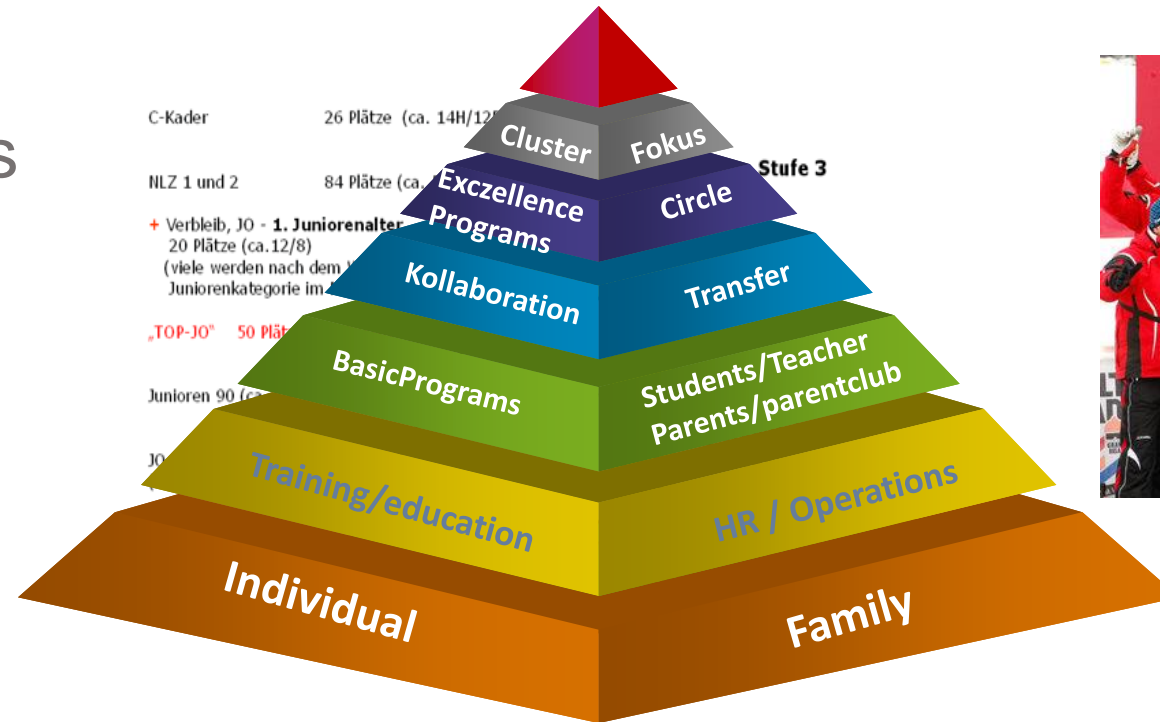


...and Highflyers



Early Discovery of young Talents

Training & Motivation



Many SkiingClubs and Supporter
Broad public support, efficient
Trainingstructures

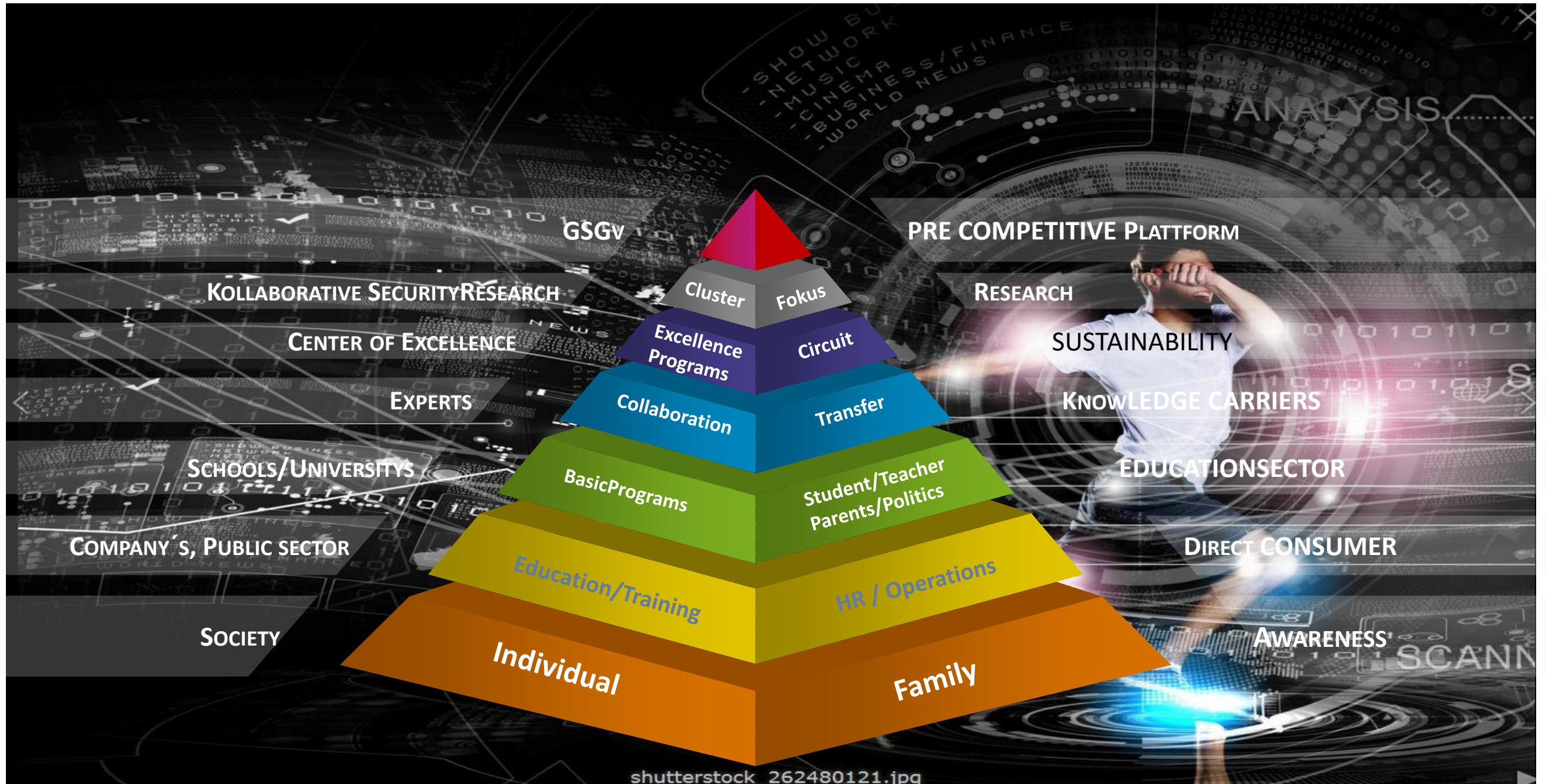


efficient selection process

generates the world bests

Security Excellence Pyramide

Excellence needs a stable basis



Basic- to Excellenceprograms

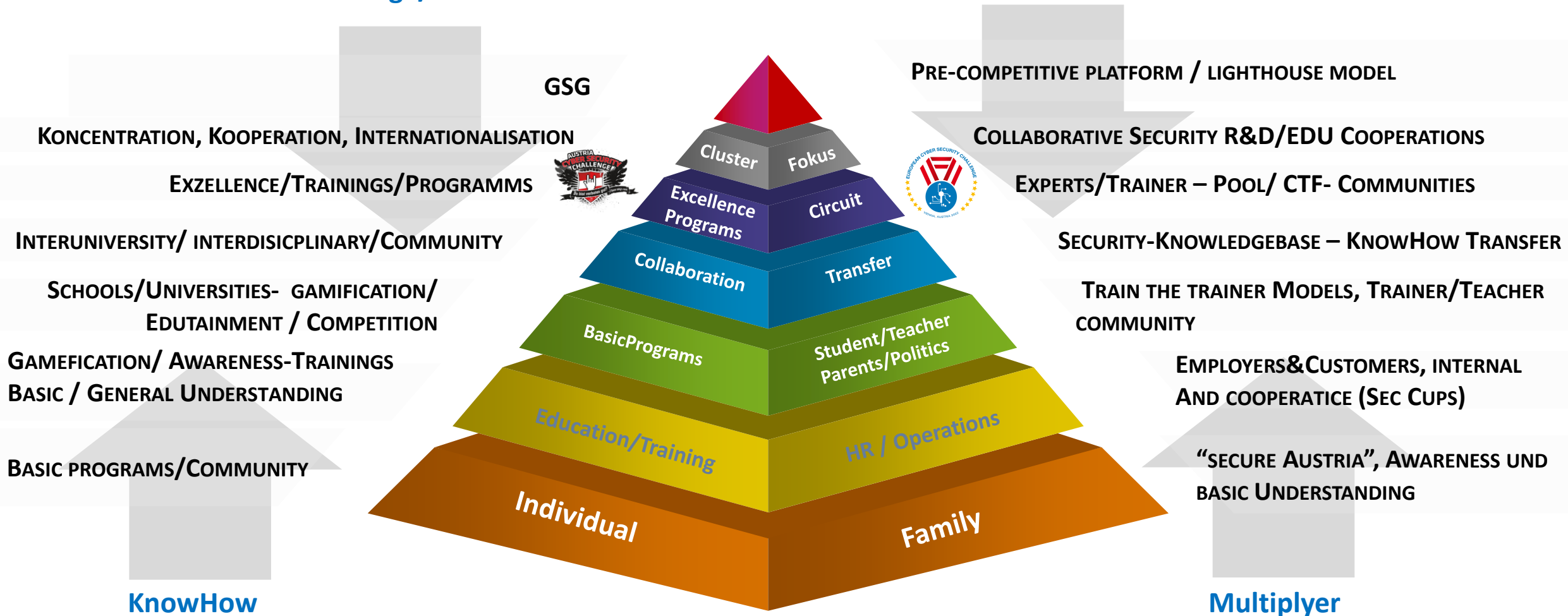
Awareness-/Games-/Education-/Trainingsplattform

ecosystem

Circulation model driven - trainings sectors / economy / society

knowlege/Transfer

Motivation /Goals



8 million team bosses can't be wrong...

Gamefication as transfer gateway

KnowledgeFox
Du gewinnst! 10:8
Du 3, hans 2
Runde 1
4, Runde 2 3
3, Runde 3 3
Matchübersicht | Runde starten

the CYBER GAME
CEO, Human Resources Manager, Legal Officer, Industry Director, Business Continuity Ma

EASY4ME ✓
IT-Security 1
10 Fragen zum ECDL-Modul IT-Security.
Created by: easy4me | Language: Deutsch
Audience: Training
Plays 6221 | Players 30426 | Shares 0 | Favorites 39
1. Wie heißt die Malware, die sich im Betriebssystem versteckt?
2. Wie erkennt man, dass Daten im Internet sicher übertragen werden?
3. Was gehört laut Datenschutzrecht nicht zu den besonders schutzwürdigen Daten?
4. Welches Ziel hat Social Engineering?
5. Wie nennt man die Informationsbeschaffung von Betrugern, wenn sie Altpapier durchsuchen?
PLAY ▶
Tweet | Merken

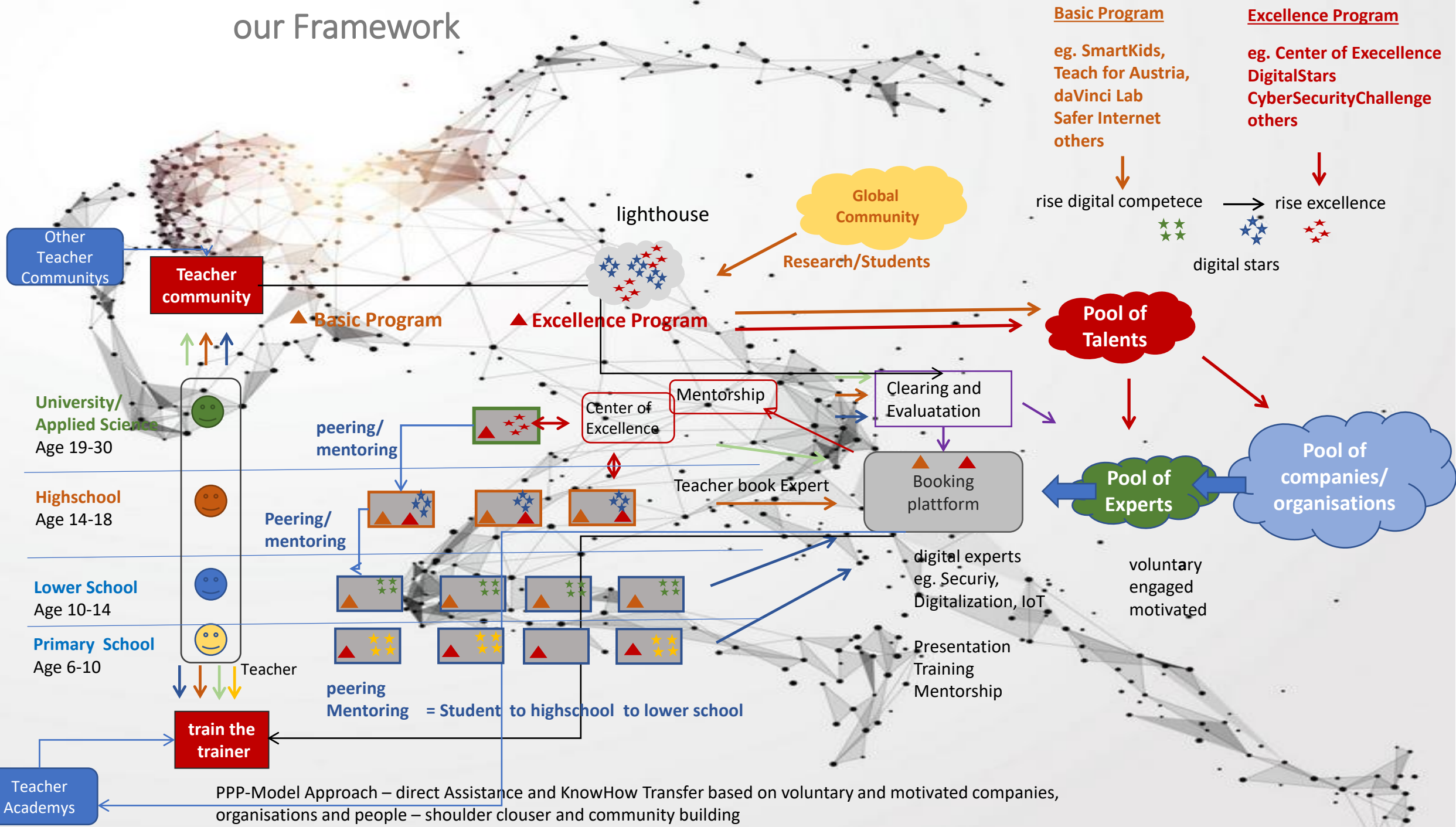
socrative

Level 1
H
SWISS CYBER STORE
MATHS CHALLENGE
2+2w
+ + V
Angry Bird
Magnifying Glass
Skull and Crossbones
Spiral Notebook
Egyptian Mask
Mobile Phone

Kahoot!

training
HR / Operations
BasicPrograms
Kids/Teacher Parents/Associations
individual
family

our Framework



Our strategic goals

- Raising awareness that adequate security excellence is imperative for our society
- Benchmarking for young people, schools and universities
- Early discovery and promotion of IT security talents
- Development of long-term models to anchor IT security excellence in the education sector
- Raise attractiveness of cybersecurity / digital literacy for young people and our society
- Fingerprinting and human sensor project on available talent and resources
- National and European networks
- Development of sustainable IT security basis networks
- Development of resilient infrastructures /Secure Base layer for communication & supply networks
- Security Research Concentration (VISP) / Security Ecosystem (www.visp.wien)



Thank you!

**Joe Pichlmayr, CyberSecurityAustria
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CyberSecurityAustria enables

- IT-Security Excellence Programs - structured Talent Search/Encouragement
- Increasing Security AWARENESS in our Society, in our Companies as well as in public sector and our among our political decision makers
- institutionalized know-how transfer - knowledge carrier economy - education sector
- high TRUST in Austrian security know-how, security provider, security excellence
- strengthening the Austrian industry and economy through domestic products and services as well as qualified experts – decrease dependency increase resilience
- optimal STRUCTURES for (OPEN) INNOVATION involving the cooperation partners and various other stakeholders
- new JOBS for security - research, -development and -innovation

CyberSecurity Austria facilitates

- young TALENTs and INNOVATIVE IDEAS
- EXCELLENCE in R&D and EDUCATION
- New PRODUCTS and SERVICES for Security made in Austria
- INTERACTION with Security-Start-Up und Innovations Ecosystems
- Institutionalized EXCHANGE between education and training, research, development, innovation, business and industry
- New forms, formats and methods of EDUCATION and TRAINING for various stakeholders
- New forms, formats and methods for (OPEN) INNOVATION
- INTERDISCIPLINARY AND CREATIVE SOLUTIONS
- (informal) KNOWLEDGE TRANSFER between the cooperation partners and other stakeholders