DigiFed Project tools to foster technology transfer

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**17/11/2020 DigiFed DIH-Network Event**

17. 11. 2020

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DigiFed : Digitising Europe's Industry Together

DigiFed is a H2020 funded project dedicated to support **European cross-border** partnerships to foster industry to digitalize their product/service and reach get into new markets enabled by **Cyber Physical Systems (CPS)** & **embedded Systems**

- **12 Partners from 9 European Countries**
- **Duration**: 3 years, 01/01/20 to 31/12/22,
- **Budget:** 8 M€
- **Cascade Funding:** 3.9 M€ to SMEs, start-ups & MidCaps

DigiFed is part of the European Commission "Digitising European Industry - DEI- strategy"
https://smartanythingeverywhere.eu/
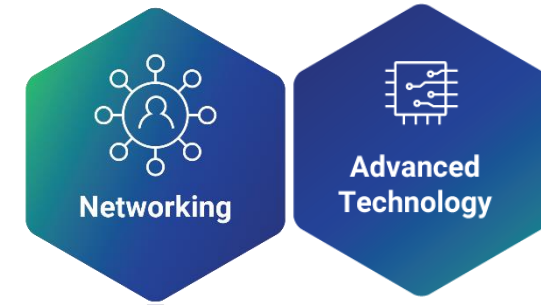
The DigiFed **networking** strategy

Networking

Advanced Technology

Building upon existing **D**igital **I**nnovation **H**ubs (**DIHs**), DigiFed fosters **EU cross-border partnerships** between:

- SMEs,
- Midcaps,
- large enterprises
- Universities
- Public bodies
- Research & Technology Organisations

DigiFed 3 main innovation pathways

Application Experiment

- Get funding and technical expertise to develop your CPS prototype
- Access to innovation management training program
- Target 38 projects

Digital Challenge

- Get funding to develop a CPS prototype answering a large company need
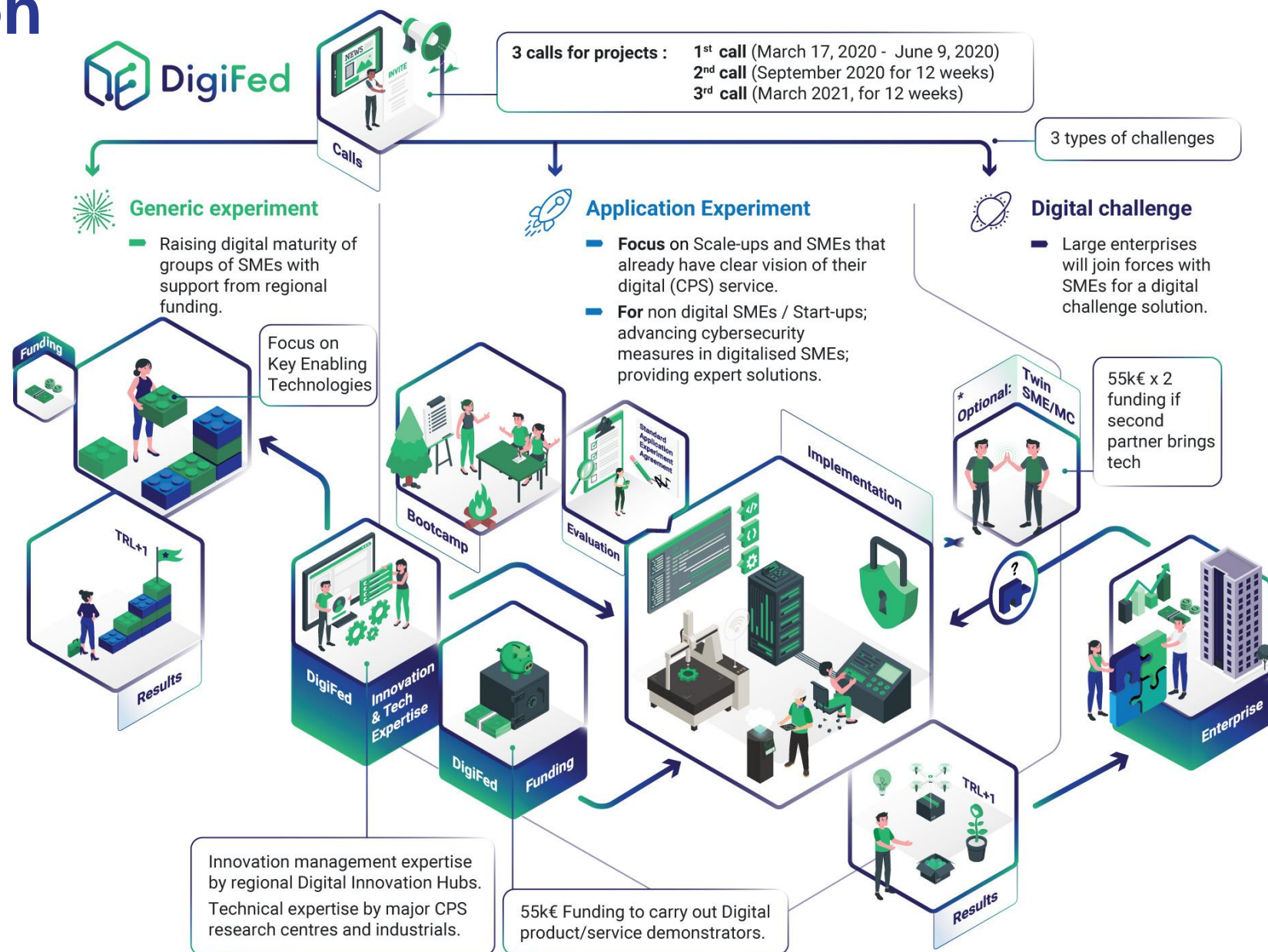- Get access to new markets
- Target 3 projects

Generic Experiment Community

- Participate to the technical roadmap of main RTO
- Stay in the loop of latest technological results to be ready for market movements
- Target 40 SME engaged

DigiFed innovation pathways

3 calls for projects : 1st **call** (March 17, 2020 - June 9, 2020)
2nd **call** (September 2020 for 12 weeks)
3rd **call** (March 2021, for 12 weeks)

3 types of challenges

Calls

Generic experiment

- Raising digital maturity of groups of SMEs with support from regional funding.

Focus on Key Enabling Technologies

Funding

TRL+1

Results

Application Experiment

- **Focus** on Scale-ups and SMEs that already have clear vision of their digital (CPS) service.
- **For** non digital SMEs / Start-ups; advancing cybersecurity measures in digitalised SMEs; providing expert solutions.

Bootcamp

Evaluation

Standard Application Experiment Agreement

Implementation

Digital challenge

- Large enterprises will join forces with SMEs for a digital challenge solution.

* Optional: Twin SME/MC

55k€ x 2 funding if second partner brings tech

DigiFed Innovation & Tech Expertise

DigiFed Funding

TRL+1

Results

Enterprise

Innovation management expertise by regional Digital Innovation Hubs.

Technical expertise by major CPS research centres and industrials.

55k€ Funding to carry out Digital product/service demonstrators.

DigiFed offers through Open calls

"Application Experiment" projects

55k€ Funding *(70%)* to carry out Digital product/service demonstrators

+ **Technical support** by major Research Centers and Industrials

+ **Innovation management training** by Blumorpho

Targeted companies :

→"**Non-digital**" SMEs, Start-ups and Mid-caps that want to create

a 1st product/service demonstrator based on digital technologies

→ SME, start up, Mid-caps **already using digital technologies** that want to

integrate new digital technologies or increase their digital maturity

Funding

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Expertise

Innovative Solutions

Competencies
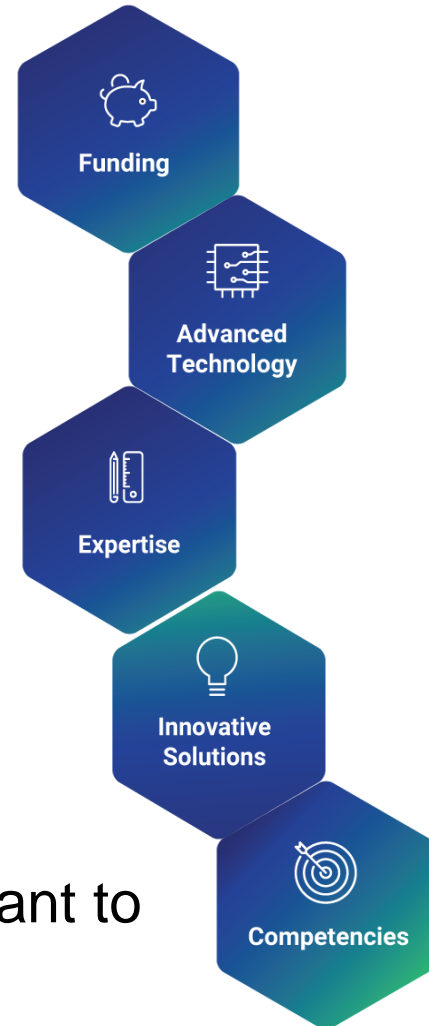
2 types of "Application Experiment"

SINGLE AE: one company (55k€)

- **The applicant Company** :
  - Want to develop a CPS innovation, has a clear market vision,
  - Need technical support from a DigiFed Technology partner (cross border)

TWIN AE: 2 companies from 2 different countries (2x 55k€ max)

- **Company #1** :
  - want to develop a CPS innovation, has a clear market vision,
  - need complementary expertise to validate the concept,

- **Company #2** :
  - bring the complementary expertise to realize the prototype or access the market
  - **NO** DigiFed Technology partner involved

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Competencies

DIGITAL CHALLENGE

DigiFed and European enterprises are looking for StartUps and SMEs who are ready to:

- Respond to digital challenges for which NO Cyber Physical Systems or embedded systems solutions have been identified in the market

- Collaborate with large organisations to prototype potential solutions

Digifed and Digital Challenge Owners offer :

- The opportunity to respond to a real-world industry challenge adding a relevant use case to your unique value proposition.

- Up to €110k in funding – representing 70% of your project's declared budget.

- Added value to your product, through high-level technical expertise, innovation support and access to pilot sites to deploy your solution

- The opportunity to bid to implement the full solution for the Digital Challenge Owner

GENERIC EXPERIMENT

Build a Community focused on a Technical Area proposed by a DigiFed technical partners

- Involve a group of cross border SMEs StartUps and MidCaps **with common challenge**
- **Share** your requirements with other SMEs from different domains with the same technological needs.
- Define **common R&I specifications** to be implemented by the DigiFed partner
- Workshop to give you feedback about the Advanced technology developed by the DigiFed Partner, interact with our expert
- **Stay in the loop of latest technological** developments to be ready for market movements.
- Selected companies will received 8k€ support for their participation to the community

4 DigiFed GE COMMUNITY

Enterprises choose one of the 4 different communities:

- **Cybersecurity trusted IoT Platform** (CEA)
- **Industrial Cybersecurity** (IKERLAN)
- **Energy-efficient lighting** (BME)
- **IoT prototyping in agriculture** (UL)

Q3 2020

Build communities:
- Enterprises
- Research Centers
- Techno Experts
- Innovation experts
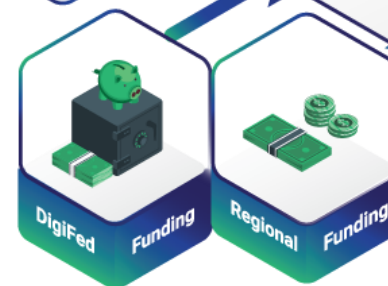
Q4 2020

Enterprises common specifications requirement

2021

Generic Experiment program Implementation

End of 2020

Be the first to share the results, New solutions & increase of SME(s) digital maturity

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Six Technology Partner offers

- **CEA :** Cybersecurity of hardware systems

- **IKERLAN:** Industrial cybersecurity; Dependable Embedded Systems; Information and Communication Technologies; HW and communication systems.

- **ST- F:** STM32 MPU and STM32 MCU enabling innovative applications for Smart Industry, Smart City, Smart Home and Smart Things

- **ST- I:** Physical Digital Transformation support with HW&SW tools for fast prototyping addressing innovation on different application domains.

- **Univ Ljubjana :** Cloud DevOps; Electrical blockchain switch; Big Data analytics tools; IoT Prototyping & Sensing Automation System; 5G Experimentation, Quality and Intervention Monitoring System;

- **DGC:** 5G and IoT network testbeds, IoT benchmarking, AI compute, Machine Learning and AI ethics

Consult Partners Technical offer on DigiFed website
https://digifed.org/explore/digifed-offer/

![DigiFed]

Innovation management support

All selected projects will receive Innovation Management support :

→ To prepare the new product/service Go-to-market strategy,

→ To get access to further funding or to attract private investors.

- **Blumorpho:** Innovation Management Training program

- **Ikerlan** : Cybersecurity sensibilization training programm to companies that needs it

- DigiFed **Digital Innovation Hubs** open their network to identify new partner for your company
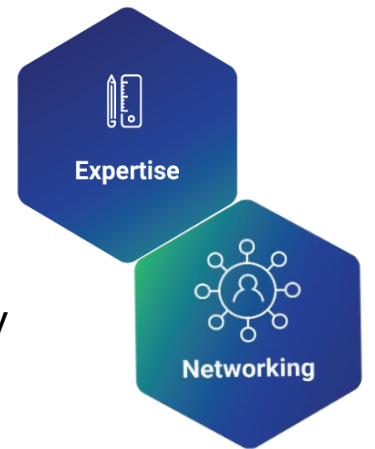
    ❖ **Digital Catapult** – UK   ❖ **University Ljubjana** - Solvenia

    ❖ **Steinbeis** – Germany   ❖ **BME** - Hungaria

    ❖ **MINALOGIC** - France   ❖ **Ikerlan** - Spain

Q&A SESSION

Time for you to ask your questions

SECURE infrastructure for trusted IoT platform

- **Function**: security infrastructure establishing an environment to isolate trusted code executed or data manipulation by an IoT platform from an untrusted world

- **Principle:**
  - Integration of a secure hardware module
  - Integration of a trusted OS isolated from Linux with hardware mechanisms
  - Drivers and software bricks to drive the secure hardware module inside the trusted OS
  - Interfaces between untrusted world and trusted world to drive the secure hardware module.

- **Key Performances:**
  - The security hardware module accesses and sensitive data manipulation are hardware isolated from untrusted OS
  - Trusted applications can be developed to have secure services interfacing with untrusted OS

- **Uniqueness:**
  - Hardware isolation from an untrusted world for secure hardware module accesses
  - Stack in trusted OS for hardware secure module accesses
  - Bridge between untrusted OS and trusted world

- **Maturity/TRL:** Technology Readiness Level

  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

- **Applications:**
  - Any application using a set of IoT devices to collect personal and/or critical data
  - Support for IoT applications developers to secure their product
  - Smart factories, Energy production and distribution, Healthcare , critical infrastructure

Example of SECURE infrastructure implementation using STM secure elements STM32 and TPM with Linux

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cea tech

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