

SELFSUSTAINED CROSS-BORDER CUSTOMIZED CYBERPHYSICAL SYSTEM EXPERIMENTS FOR CAPACITY BUILDING AMONG EUROPEAN STAKEHOLDERS

How to Write a Coherent CTTE Proposal?

Georgios Keramidas

Technical Manager of Smart4All



Co-funded by the Horizon 2020 programme of the European Union

DT-ICT-01-2019 Smart Anything Everywhere Area 2 www.smart4all-project.eu Grant Agreement: 872614

SMART4ALL CTTE Calls

• What is this presentation about:

- What ideas are we looking for?
- How to write a "coherent" a.k.a. successful proposal

• What is this presentation NOT about:

- Administrative data/issues
- Geographic representation of partners
- Everything that is mentioned on the GfA





PAE → technology transfer between academia ←→ industry and industry ←→ industry

- Can be considered as a pre-seed funding
- Golden example:
 - A University Laboratory developed a technique/process/method, but University don't know how to commercialize it
 - This technology is useful for an SME to enhance its products or internal process
- A business scenario must be there backed up with a market case i.e., through this PAE the company must move one step forward
- This PAE idea must not be trivial
 - Counter example: an SME does not have the budget to buy a code versioning tool, so the target of the PAE is to build one





PAE → technology transfer between academia ←→ industry and industry ←→ industry

- Can be considered as a pre-seed funding
- Golden example:
 - A University Laboratory developed a technique/process/method, but University don't know how to commercialize it
 - This technology is useful for an SME to enhance its products or internal process
- A business scenario must be there backed up with a market case i.e., through this PAE the company must move one step forward
- This PAE idea must not be trivial
 - Counter example: an SME does not have the budget to buy a code versioning tool, so the target of the PAE is to build one





PAE → technology transfer between academia ←→ industry and industry ←→ industry

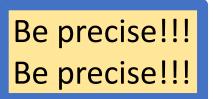
- Can be considered as a pre-seed funding
- Golden example:
 - A University Laboratory developed a technique/process/method, but University don't know how to commercialize it
 - This technology is useful for an SME to enhance its products or internal process
- A business scenario must be there backed up with a market case i.e., through this PAE the company must move one step forward
- This PAE idea must not be trivial
 - Counter example: an SME does not have the budget to buy a code versioning tool, so the target of the PAE is to build one



What is a PAE?



- The technology transfer must be:
 - a new product or extra features enabled to an existing product
 - Reduction in power or energy consumption in % per device in % factor per device reduction in power or energy consumption → Good PAE if the power reduction can enable new features (new applications) or open new market verticals
 - Engineering/manufacturing processes improved
 - Cost savings in product engineering/manufacturing



A Good Consortium

- (1) Technology Producer
- (2) Technology Receiver
- (3) Productization partner
- (2) & (3) can be the same partner
- We can have two (1)
- In a (1)-(2)-(3) scenario, (2) or (3) can be a platform (SW or HW) provider
- Important: write in the proposal the role of each partner in one, concrete sentence



A Good Consortium

- (1) Technology Producer
- (2) Technology Receiver
- (3) Productization partner
- (2) & (3) can be the same partner
- We can have two (1)
- In a (1)-(2)-(3) scenario, (2) or (3) can be a platform (SW or HW) provider
- Important: write in the proposal the role of each partner in one, concrete sentence



Main Sections of a Proposal

- Tagline (your project in one sentence)
- Brief Description (What are the benefits for all organizations?)
- Select the vertical your project is addressing
 - Digitized Transport, Digitized Agriculture, Digitized Environment, Digitized Anything
- Excellence ┥
- Impact
 - Market opportunity
 - Competition
 - Commercial Strategy and Scalability
- Implementation
 - Work Plan
 - Team
 - Resources

It is all about coherency

Main Sections of a Proposal

- Tagline (your project in one sentence)
- Brief Description (What are the benefits for all organizations?)
- Select the vertical your project is addressing
 - Digitized Transport, Digitized Agriculture, Digitized Environment, Digitized Anything
- Excellence ┥
- Impact
 - Market opportunity
 - Competition
 - Commercial Strategy and Scalability
- Implementation
 - Work Plan
 - Team
 - Resources

It is all about coherency



- From academia: A lab is performing research on X topic → To which types of companies this X will be useful and how? → Try to identify these companies and start the brainstorming meetings
- From industry: An SME has a specific technology that cannot be commercialized by this company → Try to move this tech to other companies that can commercialize it
 - An academic partner can improve this technology or adapt it to other market segments by adding new features
- In the proposal: Mention why this technology can offer an added value to the productization partner → Try to be precise
- SMART4ALL offers the Marketplace service → technology offers and requests



- From academia: A lab is performing research on X topic → To which types of companies this X will be useful and how? → Try to identify these companies and start the brainstorming meetings
- From industry: An SME has a specific technology that cannot be commercialized by this company → Try to move this tech to other companies that can commercialize it
 - An academic partner can improve this technology or adapt it to other market segments by adding new features
- In the proposal: Mention why this technology can offer an added value to the productization partner → Try to be precise
- SMART4ALL offers the Marketplace service → technology offers and requests



- Requested in the proposal
 - Experiment description
 - Differential advantages and enhanced value this PAE offers → technology
 - Innovation level description
 - Novelty → What this technology can offer at product level?
 - Soundness of the approach
 - Soundness means
 - Requirements of the industry define the requirements of this technology
 - Demonstration in field or in the lab is important
 - TRL before and after (TRL 5 \rightarrow 7)
 - Finally: how the participating organizations will interact to achieve a successful outcome





- Requested in the proposal
 - Experiment description
 - Differential advantages and enhanced value this PAE offers → technology
 - Innovation level description
 - Novelty → What this technology can offer at product level?
 - Soundness of the approach
 - Soundness means
 - Requirements of the industry define the requirements of this technology
 - Demonstration in field or in the lab is important
 - TRL before and after (TRL 5 \rightarrow 7)
 - Finally: how the participating organizations will interact to achieve a successful outcome



Indicative KPIs for Excellence

- New products or enhanced features to a new product
- Patent applications
- Licenses
- Contributions to standard
- New open source software packages released
- Scientific publications
- TRL elevation







- Resulting added value for the industry partner and customers
- Benefits of the collaboration
 - How the competitiveness of the industry partners will be improved (for each Industrial Partner)?
- Market opportunity
 - Define the Target Market and its size. Be precise: if you add a new network protocol to an agriculture device DO NOT analyze the whole agriculture market
- Competition
 - PAE technology is included in other products/services?
- Commercial Strategy and Scalability
 - Pricing model and projected revenues after the end of project, in 3 years, in 10 years





- Resulting added value for the industry partner and customers
- Benefits of the collaboration
 - How the competitiveness of the industry partners will be improved (for each Industrial Partner)?
- Market opportunity
 - Define the Target Market and its size. Be precise: if you add a new network protocol to an agriculture device DO NOT analyze the whole agriculture market
- Competition
 - PAE technology is included in other products/services?
- Commercial Strategy and Scalability
 - Pricing model and projected revenues after the end of project, in 3 years, in 10 years

Indicative KPIs for Impact

- New jobs generated
- Products improved
- Processes improved
- Potential users/customers
- Investor pitches
- Revenue increase
- Operating costs
- Start-ups founded or in foundation
- Venture Capital granted



Implementation

- Three main parts
 - Work Plan



- Full coherent with the Excellence part → Every *word* mentioned in the excellence part must be justified in the workplan
- Breakdown into workpackages, tasks, deliverables, and responsibilities
- Do not forget to add market and business related activities (if it necessary)
- Team
 - How the work is divided among the team members
 - Does the team have complementary expertise ?
- Resources
 - Costs (in PMs) for every partner, for every workpackage, and task



• Proposals will be prioritized if

- The consortium includes at least one member from one of the SEE countries
- COVID-19
 - Does your proposal address current and future problems stemming from the COVID-19?
- Social Sensitive Groups
 - Does your proposal address special needs of a particular social sensitive group?



