



*This project is co-financed by the European Union
and the Republic of Turkey*

TurkeyinFP7
Cooperation | Research | Technology

FP7 Project Proposal Preparation, Submission and Project Management Training Programme

Day 1

25th November 2013 – Dedeman Hotel, Gaziantep



Agenda

- 9:00 – 09:15 Welcome and Introduction
- 9:15 – 10:15 Introduction to Horizon 2020
- 10:15 – 10:30 Coffee Break*
- 10:30 – 11:45 Generating Ideas & Formulating Winning Concepts
- 11:45 – 12:00 Planning the Writing Process
- 12:00 – 12:30 How to Build your Consortium
- 12:30 – 13:30 Lunch*
- 13:30 – 15:00 How to Construct your Budget
- 15:00 – 15:15 Coffee Break*
- 15:15 – 16:15 The Scientific & Technical Quality
- 16:15 – 16:30 Coffee Break*
- 16:30 – 17:30 Intellectual Property

Objective of this Training

- Preparing properly for the writing process
- Important early stages of the proposal development
 - Defining good concepts
 - Developing strong consortia
- Section by section the success factors of an H2020 proposal
- Improve the quality and hence success rates for your proposals
- Overcome common obstacles about participation

Real Obstacles?

- I do not have enough **time**
- I do not have enough **resources**
- There is too much **red tape** (admin)
- I do not speak/write **English** (well enough)
- Success rate is too low, **competition** is too fierce
- Focus on **commercial returns** are too far away from my interest
- I might be restricted from **publishing** my results
- I do not want to **coordinate** a proposal
- National funding is **easier** to obtain so I do not need to apply to H2020

Real Benefits?

- Innovation, new technology creation, contribution to policies, real change
- 70 billion Euros of funding
- Up to 100% financing
- All thematic areas catered for
- 2 to 5 year projects
- Good networking potential
- Linkage with the commercial world
- Opportunity to launch research careers
- Opportunity to work with and lead the best in field

Why Coordinate?

- Your idea your project
- Control of who you work with (and who you don't!)
- Coordination cost is 100% funded
- Ability to recruit administration team
- Direct linkage with the EEC project officers
- Significant increase in your career profile

Pera – Who we are

- Pera is an industry driven research and innovation centre
- We are 500 people across 8 European locations
- Our expertise is in Engineering and Physical Sciences (R&D)
 - Prototyping and Integration
 - Materials Processing
 - Environmental Technology
 - Embedded Technology, Control Systems, Electronics
 - Modelling
- We have 25 years experience of collaborative international publicly funded R&D projects
 - We have submitted >2000 R&D proposals
 - We manage and participate in >100 EC funded R&D projects per year
 - We capture and organise our collective experiences

Your facilitators

- Ian McKay
- Peter Sheard

About you!

- Your name
- Previous experience of FP?
- What you want to gain from next 2 days

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Why?

HORIZON 2020

- *Key challenge: stabilise the financial and economic system while taking measures to create economic opportunities*

Total EU budget – €908bn

- Smart and inclusive growth
 - Education, Youth, Sport (EU Social Fund)
 - EU wide broad band (Connecting Europe)
 - Cohesion (EU Regional Development Fund)
 - Competitive Business SMEs (ERDF)
 - **Horizon 2020**
- Sustainable growth, natural resources
- Security and citizenship
- Global Europe
- Administration

Horizon 2020

- From 2014 to 2020
- €71bn Provisional budget

Horizon 2020

**Tackling Societal
Challenges**

**Industrial
Leadership and
Competitiveness**

**Excellence in the
Science Base**

Societal Challenges

- Health, demographic change and well-being
- Food security, sustainable agriculture, marine and maritime research, and the bio-economy
 - Secure, clean and efficient energy
 - Smart, green and integrated transport
- Climate action, resource efficiency and raw materials
- Inclusive, innovative and secure societies
 - EU Institute of Technology

Industrial Leadership & Competitiveness

Leadership in Enabling and Industrial Tech's

- ICT
- Nanotechnology-Production-Materials
 - Biotechnology
 - Space
- Access to risk finance
- Innovation in SMEs

Excellence in the Science Base

- Frontier Research (ERC)
- Future and Emerging Technologies (FET)
- Skills and Career Development (MSCA)
- Research Infrastructures

Funding Schemes

- Research and Innovation Grant
- Training and Mobility Grant
- Programme Co-fund Grant
- Coordination and Support Grant
- Debt finance and equity investments
- Prizes
- Procurement – two types
 - Public Pre-commercial procurement of R&D
 - Public Procurement of innovative solutions

New Features - 1

- Major simplifications through:
 - a simpler programme architecture
 - a single set of rules
 - less red tape through an easy to use cost reimbursement model
 - a single point of access for participants
 - less paperwork in preparing proposals
 - fewer controls and audits, with the overall aim to reduce the average time to grant by 100 days

New Features - 2

- An inclusive approach open to new participants, including those with ideas outside of the mainstream, ensuring that excellent researchers and innovators from across Europe and beyond can and do participate

New Features - 3

- The integration of research and innovation by providing seamless and coherent funding from idea to market
- More support for innovation and activities close to the market, leading to a direct economic stimulus

New Features - 4

- A strong focus on creating business opportunities out of our response to the major concerns common to people in Europe and beyond, i.e. 'societal challenges'
- More possibilities for new entrants and young, promising scientists to put forward their ideas and obtain funding

Simplifications

Participant short name	Funding rate for RTD %	Indirect costs method	RTD/Innovation		Demonstration (50% reimbursement)		Management (100% reimbursement)		Other (100% reimbursement)		Total costs	Requested EU contribution
			Direct costs	Indirect costs	Direct costs	Indirect costs	Direct costs	Indirect costs	Direct costs	Indirect costs		
University A	75	60%	531.250	318.750			175.000	105.000	156.250	93.750	1.380.000	1.167.500
Foundation B	50	20%	625.000	125.000	58.334	11.666			144.896	28.979	993.875	771.375
University C	75	Simplified	481.000	240.500	26.667	13.333			133.334	66.666	961.500	761.125
SME D	75	60%	281.250	168.750	140.625	84.375			43.750	26.250	745.000	520.000
Enterprise E	50	Real	270.270	229.730	162.162	137.838			54.054	45.946	900.000	500.000
SME F	75	Real	390.000	310.000	61.289	48.711			111.433	88.567	1.010.000	780.000
Total			2.578.770	1.392.730	449.077	295.923	175.000	105.000	643.717	350.158	5.990.375	4.500.000

Simplifications

Participant short name	Estimated eligible costs		Total costs	Requested EU contribution (100%)
	Direct costs	Indirect costs (25%)		
University A	862,500.00	215,625.00	1,078,125.00	1,078,125.00
Foundation B	828,230.00	207,057.50	1,035,287.50	1,035,287.50
University C	641,001.00	160,250.25	801,251.25	801,251.25
SME D	465,625.00	116,406.25	582,031.25	582,031.25
Enterprise E	486,486.00	121,621.50	608,107.50	608,107.50
SME F	562,722.00	140,680.50	703,402.50	703,402.50
Total	3,846,564.00	961,641.00	4,808,205.00	4,808,205.00

Current Debates

Funding Rules

- RTD
 - 100% Funding – 25% Overheads
- Demonstration/Near Market
 - 70% Funding – 25% Overheads

To be determined by Technology Readiness Level (TRL)

Current Debates

Unrecoverable VAT

- May be deemed as an eligible cost

Proposed Timeframe

- **Draft Work Programmes available now**
- **Draft Proposal Template Available**
- **Workshops and Info Days from October**
- **11/12/2013: Horizon 2020 starts; launch of first calls**

Horizon 2020

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Cooperation | Research | Technology

What does all this mean?

Structural Changes

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Cooperation | Research | Technology

FP7

**Cooperation
Capacities
People**

**CIP (Competitiveness and
Industry Programme)**

**EIT (European Institute of
Innovation and Technology)**

**ERC
Ideas**

Horizon 2020

Single Programme

Excellence in Science

Industrial Leadership

Societal Challenges

FP7 – Cooperation

10 Themes

Health

Food, ag, fish and biotech

ICT

NMP

Energy

Environment

Transport

SSH

Space

Security

Horizon 2020

Societal Challenges

Health

Food security, ag, marine and bio

Secure clean efficient energy

Smart green integrated transport

Climate action

Europe in a changing world

Secure societies

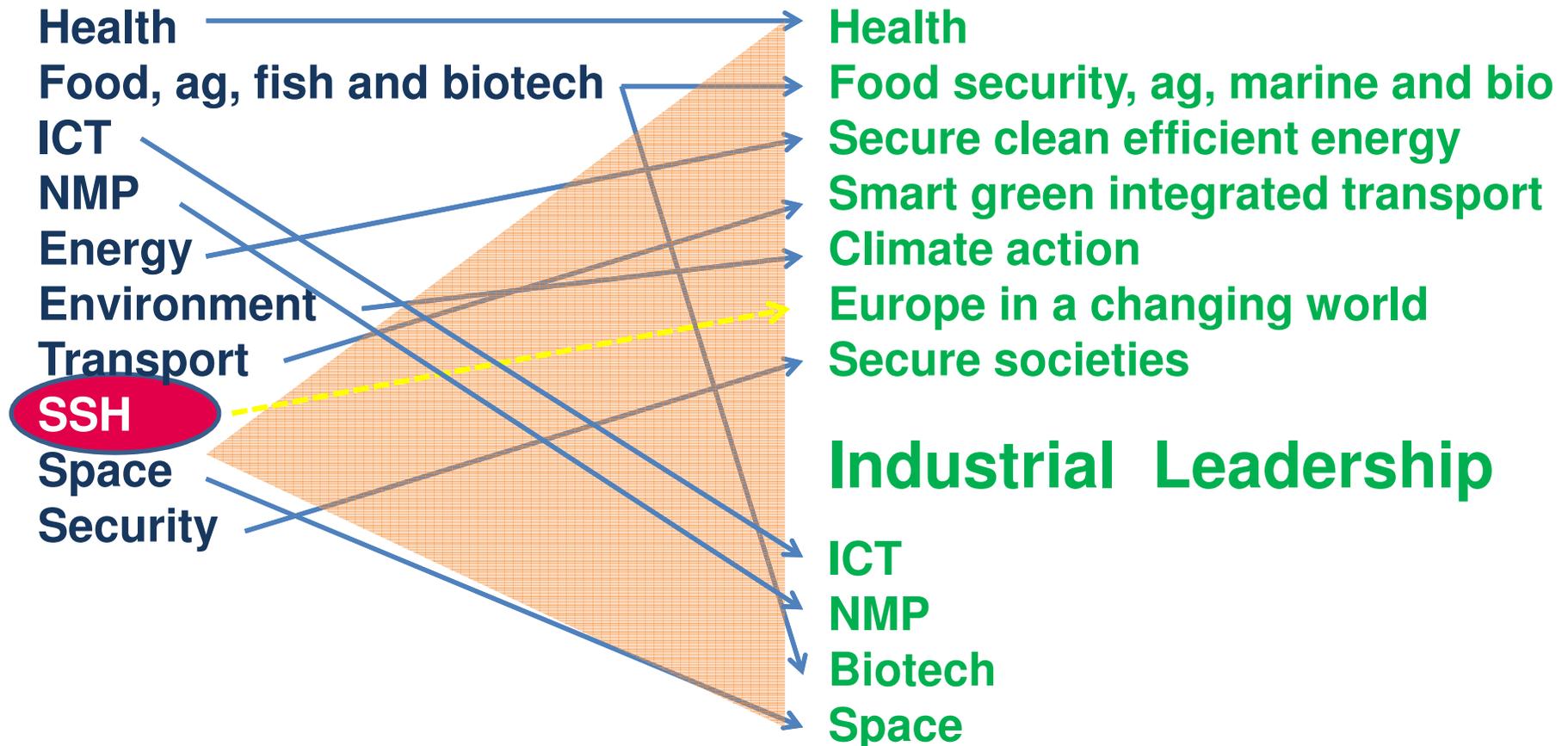
Industrial Leadership

ICT

NMP

Biotech

Space



Marie Curie - People

TurkeyinFP7
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FP7

People (Marie Curie)

Horizon 2020

Excellence in Science

Skills & Career Development

MSCA - (Marie Skłodowska-Curie Actions)

The objective of the actions will remain the same:
Supporting career development and training of researchers
through worldwide mobility and skills development

Marie Curie - People

H2020 MSCA Activities



ERC

IDEAS Programme

StG

CoG

AdG

Syn

PoC

Horizon 2020

Excellence in Science

Frontier Research

Current Grants are expected to continue except Syn

Capacities Programme

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FP7

Support for SMEs

Horizon 2020

Industrial Leadership

LEIT

Innovation in SMEs

Societal Challenges

Key Proposals for SMEs

- **Mainstreaming** SMEs through a **dedicated instrument** rather than a dedicated programme (like Research for SMEs) with much more flexibility
- An instrument applied across the whole of the Leadership In Enabling & Industrial Technologies & Societal Challenges with **dedicated budget** (20%)
- A separate activity for **research intensive SMEs** in 'Innovation in SMEs' as the continuation and expansion of Eurostars (€200M?)

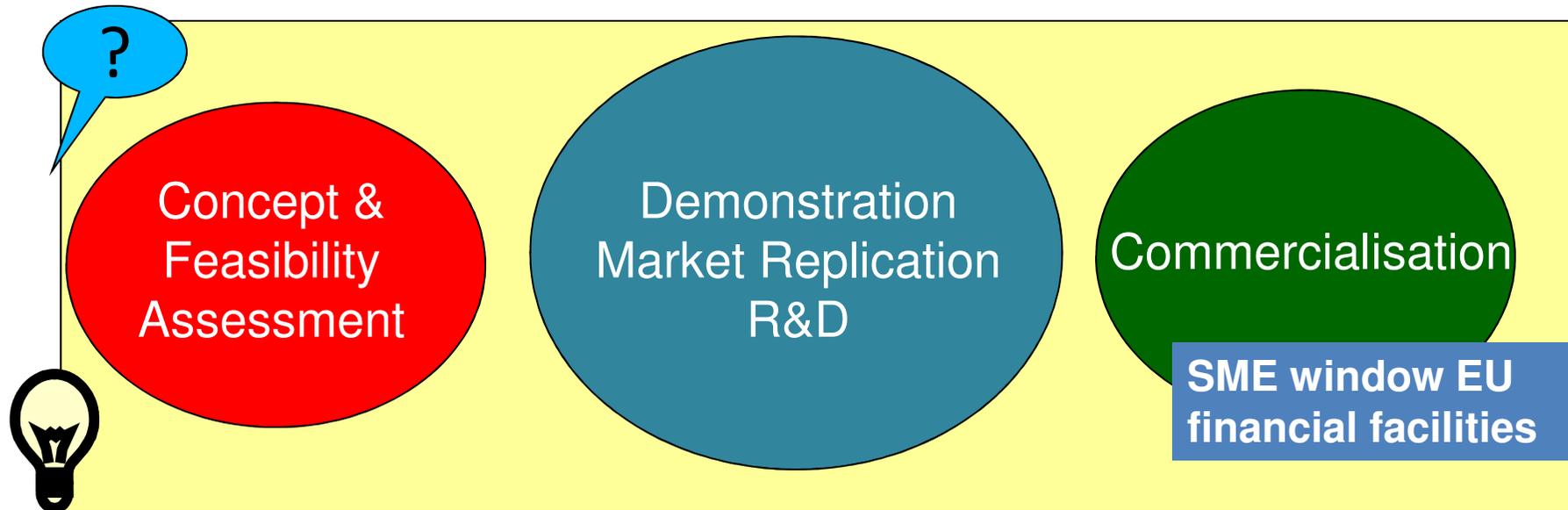
Features of SME New Instrument

1. Retention of the approach for **demand-driven**, bottom-up logic, without predetermined priorities
2. Retention of the ability for the main grant to allow the SME to undertake the project, maintain ownership of IPR and **outsource tasks** where needed
3. Recognition that cross-border collaborations are an important element in the innovation strategy of SMEs to overcome size-related problems, such as **access to technological and scientific competences**

Features of SME New Instrument

4. Extension upstream into a **feasibility/exploratory award** for single SMEs
5. Retention of an option within this flexible instrument for a downstream extension of a **demonstration project** if needed
6. Increased emphasis on '**Access to Risk Finance**' in the form of a debt and equity working with financial intermediaries at national and regional levels

SME Instrument



Idea to concept, risk assessment, technological & commercial feasibility

Demonstration, prototyping, testing, market replication, scaling up, miniaturisation, research

Quality label for successful projects, access to risk finance, indirect support

IDEA

continued support throughout the project

MARKET

Proposal Format Changes

FP7

B1 - S&T Quality

- 1.1 Concept and Objectives
- 1.2 Progress Beyond S of A
- 1.3 S&T Methodology and Work Plan

B2 - Implementation

- 2.1 Management Structure
- 2.2 Individual Partners
- 2.3 Consortium as a Whole
- 2.4 Budget

B3 - Impact

- 3.1 Expected Impacts
- 3.2 Dissemination and Exploitation

B4 - Ethical Issues

B5 - Gender Aspects

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H2020

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B1 - S&T Quality

- 1.1 Clarity and Importance of Objectives
- 1.2 Soundness of Concept
- 1.3 Progress Beyond S of A

B2 - Impact

- 2.1 Contribution to Expected Impacts
- 2.2 Dissemination Plans
- 2.3 Exploitation Plans and IP Management

B3 - Implementation

- 3.1 Work Plan
- 3.2 Management Structure & Procedures
- 3.3 Individual Participants
- 3.4 Consortium as a Whole
- 3.5 Resources

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What is required to be successful?

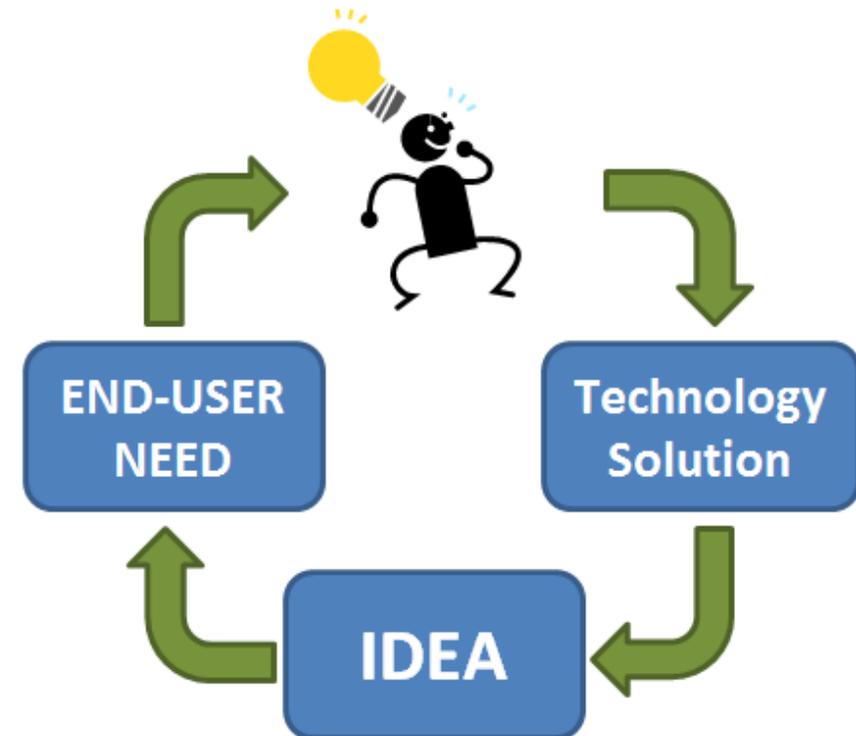
- **A WINNING project concept**
 - Logic Train or the ‘Need – Idea – Technology’
 - Commercial Justification
 - Consortium
 - European (Commission) Dimension
- **A WINNING project concept that fulfills the objectives, requirements and expected impact of the EC call text**
- **An excellent project proposal**

'Good' is not 'Good Enough'

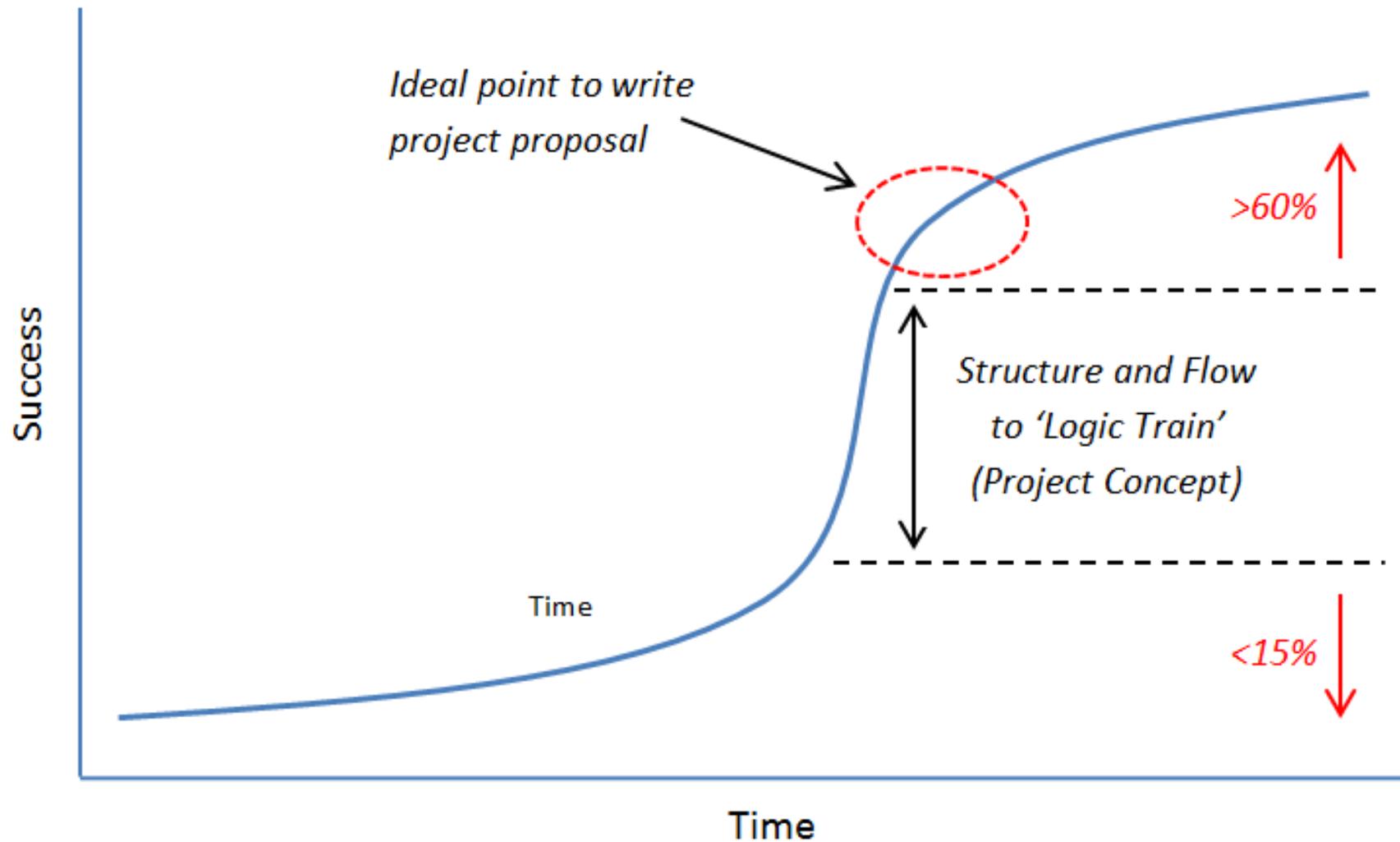
- Most funding calls are extremely competitive
- Scoring 4 out of 5 in all three evaluation sections is not good enough
- Numerous proposals per call topic with typically only one selected for funding
 - You not only need the best project concept
 - But the best project concept that most closely matches the call text

A WINNING concept has 'Structure and Flow'

- Creating 'structure and flow' to the 'logic train' is key to 'turning the light on':
 - **Structure:** right answers to the right questions
 - **Flow:** technology development meets end-user need



Structure and Flow is key to success



Six questions

- **Who** has **what** problem / opportunity?
 - **What** would they like to have?
- What is our solution?
- What **features** should our offer have?
- What features must the we **develop**?
- What **new knowledge** do we need to develop the features?

Barriers

- **Who** has **what** problem / opportunity?
 - **What** would they like to have?

But we can't



- What is our solution?
- What **features** should our offer have?

But we can't

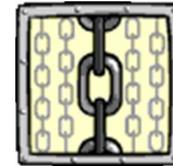


- What features must the we **develop**?
- What **new knowledge** do we need to develop the features?

Direct Connections

- **Who** has **what** problem / opportunity?
 - **What** would they like to have?

But we can't



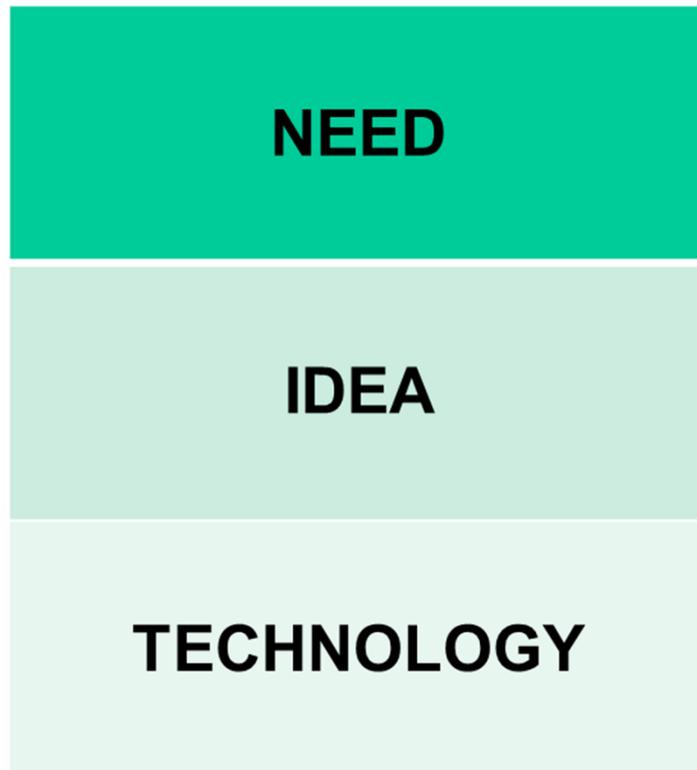
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But we can't



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Need – Idea – Technology



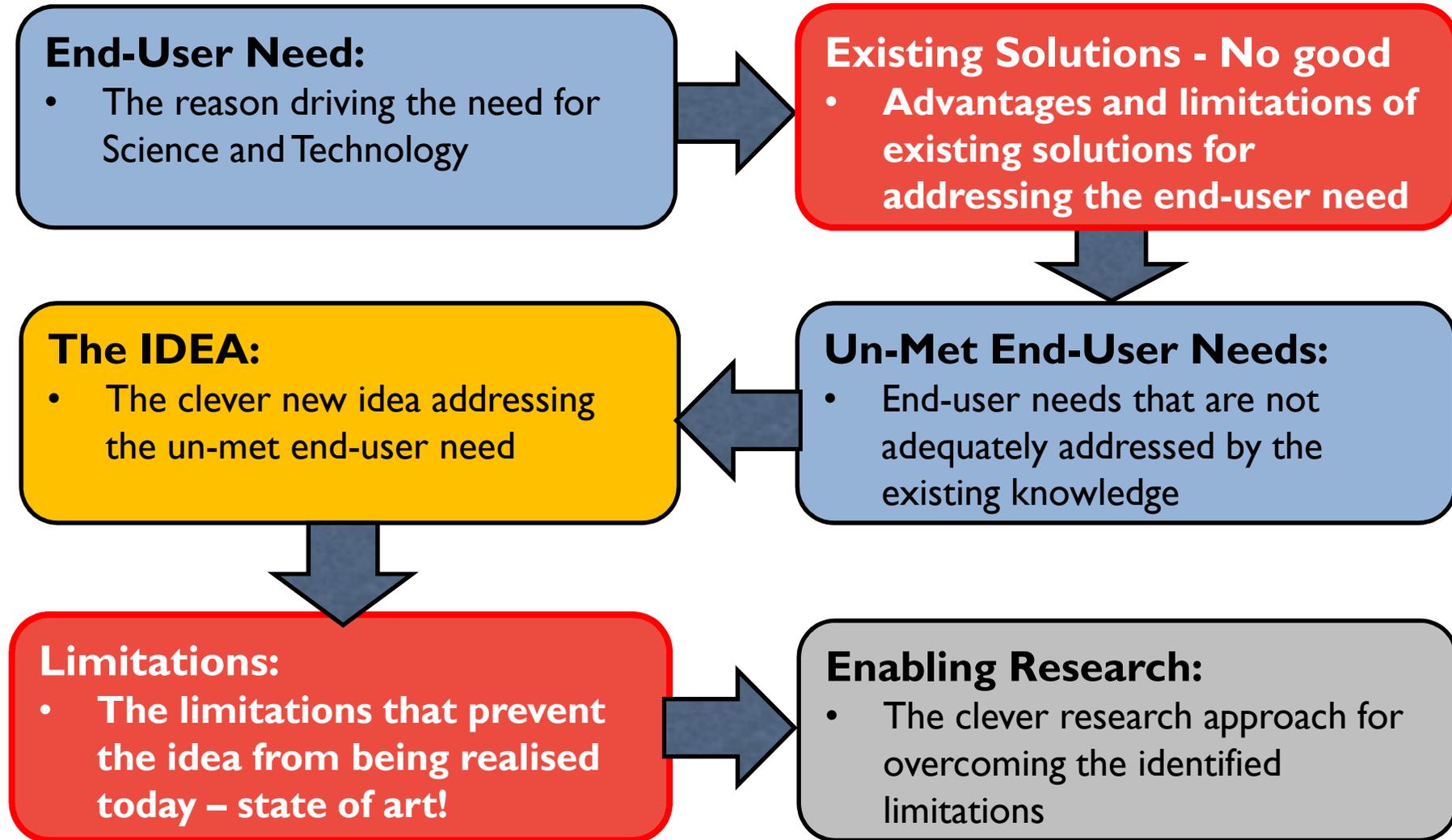
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Need – Idea – Technology

Market End-User	NEED
Exploiters	IDEA
Researchers	TECHNOLOGY

- **Who** has **what** problem / opportunity?
 - **What** would they like to have?
 - What is our solution?
- What **features** should our offer have?
 - What features must the we **develop**?
 - What **new knowledge** do we need to develop the features?

Logic Train Summary



Logic Train Summary

- Same as any proposal, bid tender, sales document:
- Situation: Solution: How we will do it?
- You have to include an exciting element to your I or T

The EC Dimension

- **What is the European impact / benefit of the proposed concept:**
 - Political - addressing topics of political interest or priority
 - Economic - contributing to the growth and competitiveness of European industry and commerce
 - Societal - improving health and safety, quality of life, employment and working conditions
 - Technological - scientific knowhow and technological advancement
 - Legislative and standardisation - addressing existing or emerging legislation and supporting the development of new standards
 - Environmental - enhancing sustainability, reducing waste, pollution and energy use etc...)
- **The European dimension is determined primarily by the selected 'End-User Need' or the 'EC call text'**

Practical Exercise – Write your logic train

- **Who** has **what** problem / opportunity?
- **What** would they like to have?
(What is currently available but not good enough)

Un-met end user needs

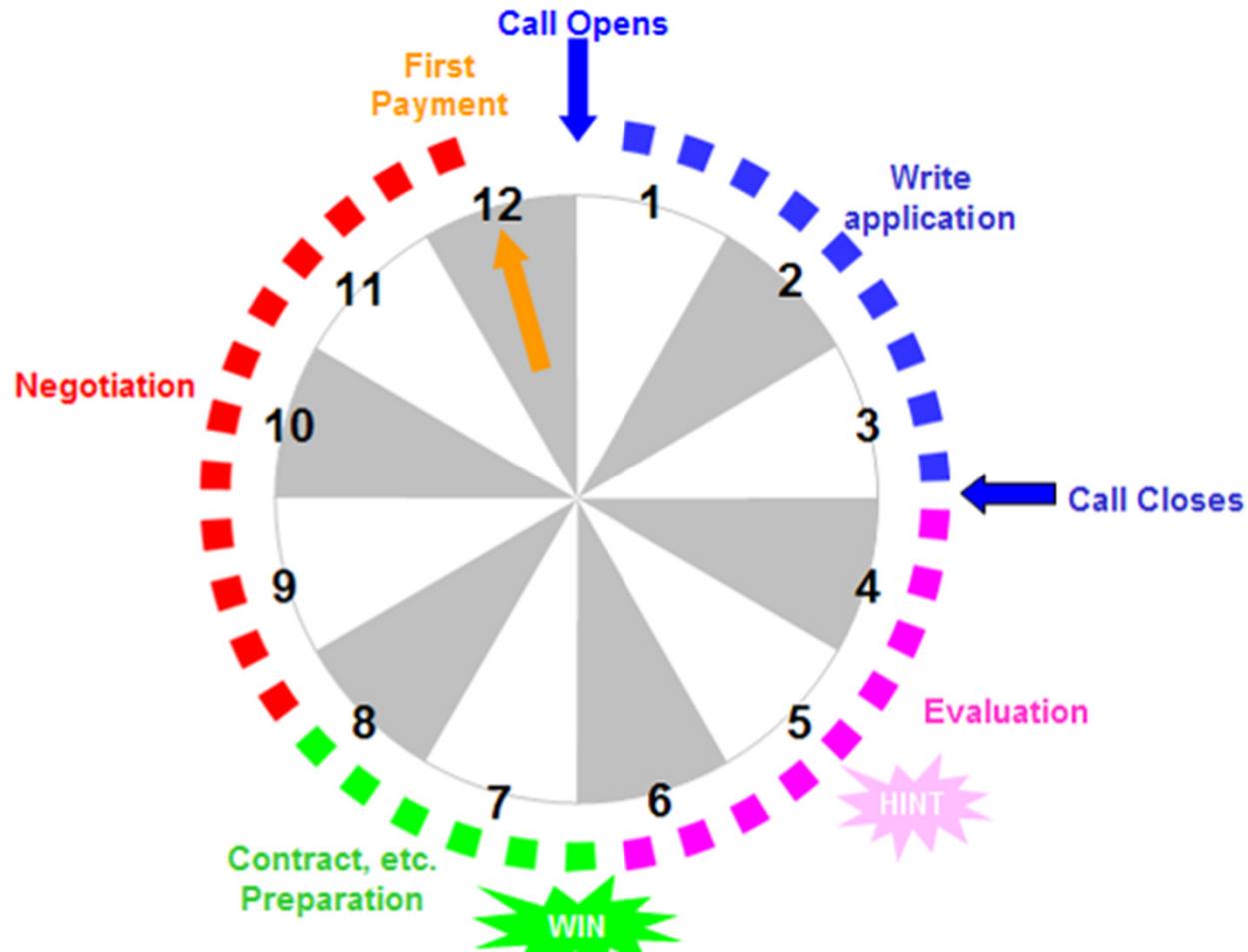
- What is our solution?
- What **features** should our offer have?
(Why cant we do this now – What don't we know)
- What features must we **develop**?
- What **new knowledge** do we need to develop the features?

Objectives

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Key Steps to Project Start



The Writing Process

- PART A – FORMS
- PART B
- COVER PAGE – Partner Table

COMPLETED ON-LINE

START PAGE COUNT

-
- B.1 S&T QUALITY
 - B.2 IMPACT
 - B.3 IMPLEMENTATION

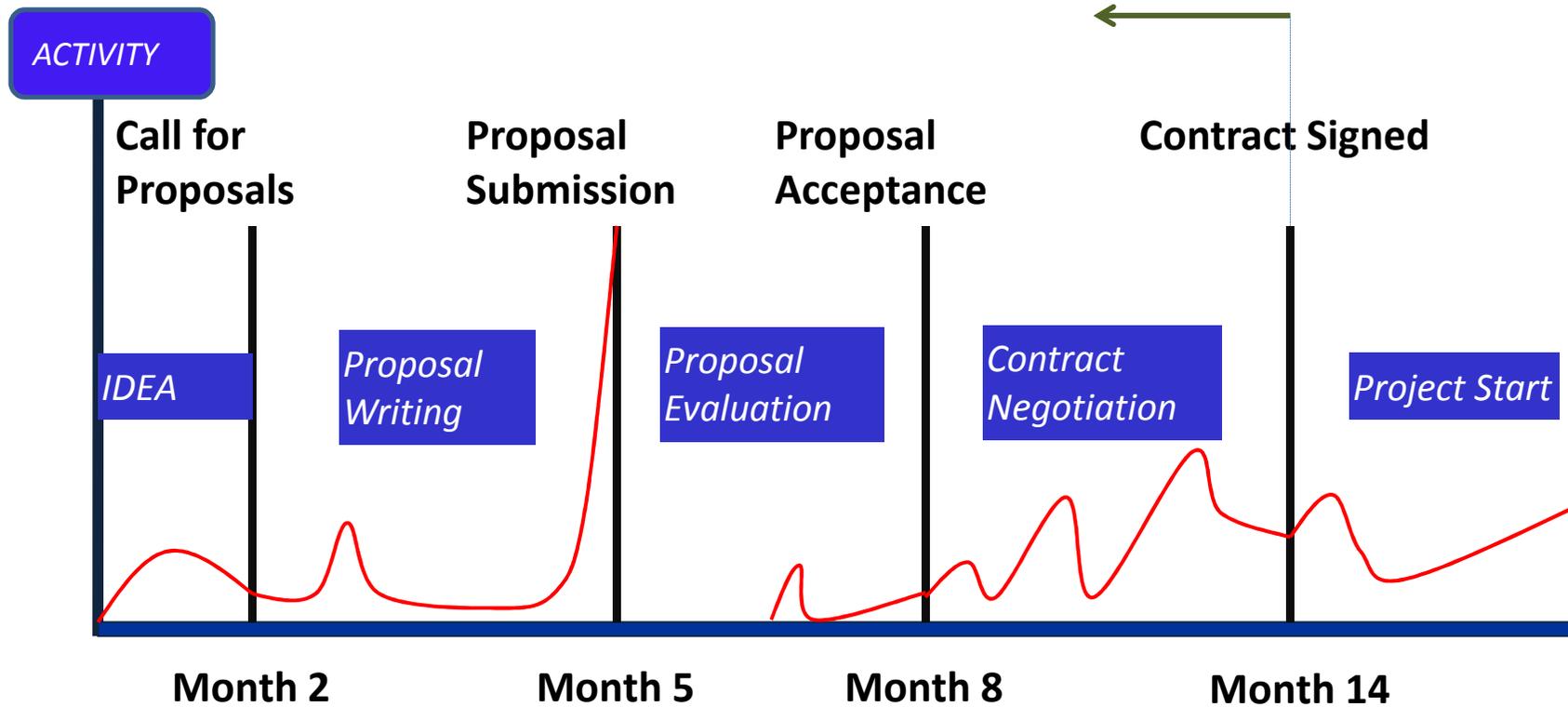
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-
- B.4 ETHICAL ASPECTS
 - B.5 GENDER ISSUES

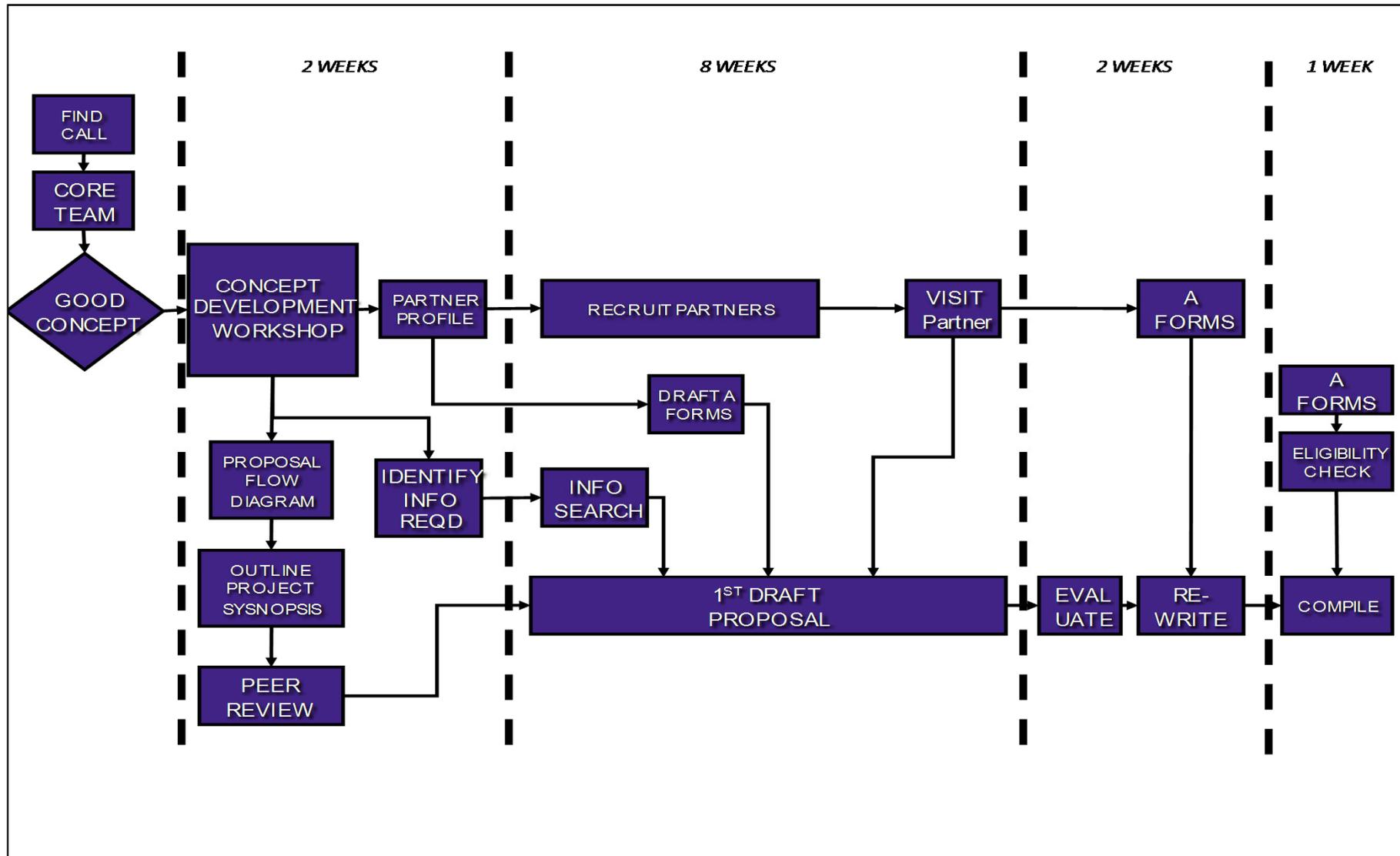
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Planning the Writing Process

H2020 – Aiming to Reduce Time



Planning the Writing Process



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Partner recruitment

- Stable motivated consortiums are the backbone of successful projects!
- Need partners' commitment
 - For the next 2/3 years
 - To work jointly with other partners in the consortium
- Changes in project partners can lead to...
 - Potential problems at negotiation
 - Disruptions in the consortium
 - Distrust with the EC

Building a Consortium – Do's and Do Not's

DO NOT

- Find a potentially suitable call
- Contact 10 other universities you work with
- Sit down and discuss what you should all do



DO

- Find a potentially suitable call
- Contact 1 or 2 key partners you know
- Develop the proposal concept
- Identify key skills gaps
- Recruit partners to fill identified gaps



Basic questions to consider

- What partners are required to make my project eligible?
- What skills and resources does my project need?
- What partners can my project budget afford?
- What help do I need to refine my project concept and prepare a winning project proposal?
- Who are the key partners?
- Does each partner bring something UNIQUE to the project?
- Does each partner have a well defined role and benefit?
- Do I have the required supply chain / commercial partners?
- Does the project mobilise the required critical mass of expertise and experience?
- Is each partner motivated and committed to the project?

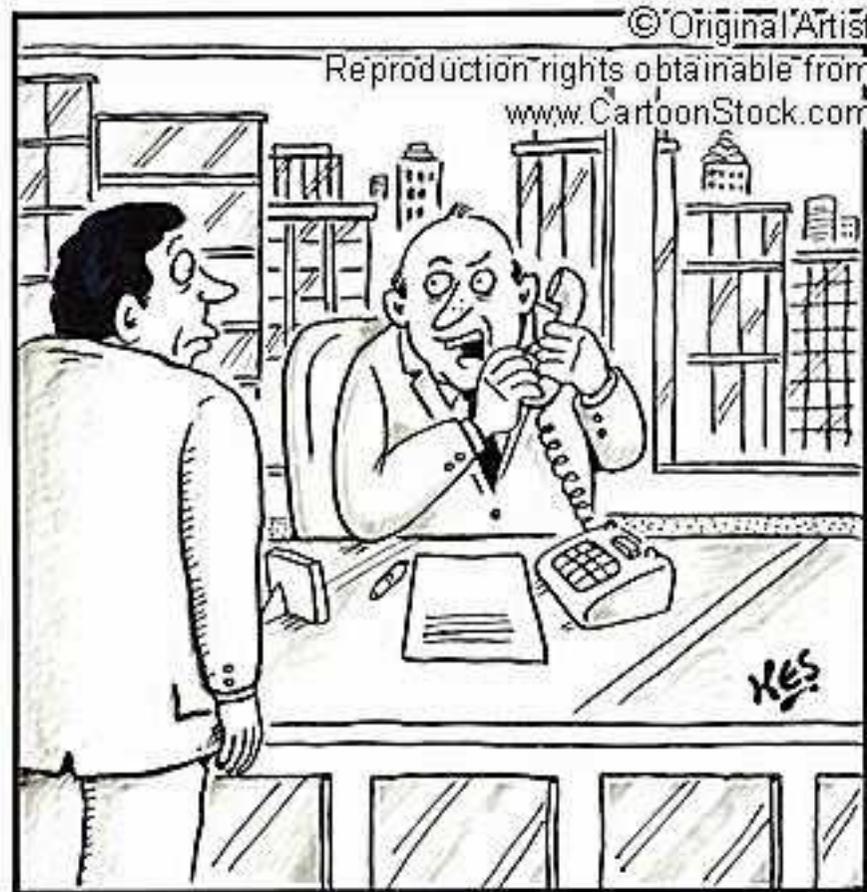
Partner recruitment

Golden rule: Understand what you are offering!

Be clear on the Need & prepare an overview of your idea (half a page)

- Types of partners needed
- Benefits & outputs expected for each of them
 - Supply diagram / route to market
- Potential objections
 - Resources
 - Paperwork
- Summarise the above in **2-Page doc**
- Be ready for questions!

Talk to your future partners!



"A real person's answered it. I hate that. I'll call back when their voicemail's activated."

But who to contact?

- Be aware of their position and buying / decision-making drivers
 - MD?
 - Technical Director?
 - Sales Director?
 - Engineer?
- Project and company specific!

So now you have got your partner, what next?

- It is important that partners know what they are being committed to
 - What tasks they will need to undertake
 - What we believe is their specific know-how
 - What contribution is expected in-terms of
 - Person-Months
 - In-kind contribution
 - Equipment to be supplied / used
 - How much funding they will receive / not receive!
 - What Intellectual Properties & exploitation rights they will be granted

What do you need from them?

- Partners' agreement in writing (from a senior member of staff)
- Personnel rates
- Accounts
- All info required for A2 forms
- Description of business activity
- Experience
 - Track record/previous research activities
- CVs from a number of relevant staff
- Clear description of ownership

What do you need from them?

- Make it easy and quick for them to help you!
- Send forms to them with as much info **pre-filled** & ask them to check it
- Much better than sending a totally blank form
- Get NDAs in place before going beyond a simplified summary

Partner Info Request Document

PROJECT ACRONYM:

To secure your place in the consortium please return the completed form, a signed copy of the mutual confidentiality agreement and your most recent set of audited accounts to Ross Mitchell by email to ross.mitchell@pera.com or by fax to +44 (0)1664 501 556.

Thank you in advance for your cooperation and we look forward to working with you.

PARTNER ORGANISATION	
Organisation Name:	
Organisation Address:	
Main Contact:	
Title	
Name	
Position	
Email	
Phone:	
Fax:	
Website:	
Organisation Type (Choose from LIST 1 below)	
Company status (Choose from LIST 2 below)	
Company registration number	
Place of incorporation	
Turn over (Year)	
Number of staff (Year)	
What month does financial year end?	
Has partner organisation been involved any Framework Programme projects either currently or previously? If so please give project name:	
Approximate Salary Rates:	
Senior Manager (£/year):	
Skilled / Engineer (£/year):	
Unskilled / Technician (£/year):	
Overhead Rate (%)*:	
Is the company owned more than 25% by another company? (Y/N)	
IF 'YES' PLEASE PROVIDE DETAILS OF THE ULTIMATE HOLDING COMPANY	
Name	
Organisation Type (Chose from LIST 1 below)	
Company registration number	
Address	
Turnover (Year)	
Number of staff (Year)	
SIC Code	

* If you are aware of your overhead rate (%) then please include this value. Otherwise please send a copy of the detailed management accounts and Pera can calculate the overhead rate.

LIST 1: Organisation Type:

- Business Link
- Chamber of Commerce
- Charity / Not for profit
- Cooperative
- Further education
- Higher education
- Learning and skills council
- Limited by Guarantee
- Limited company
- National Training organisation
- Other national body
- Other regional body
- Partnership
- Public Limited Company
- Public sector research institutes
- Regional Development Agency (RDA)
- Research & Technology Organisation
- Sole Trader
- Trade Association
- Unlimited Company

LIST 2: Company status

- Established
- Pre-start-up
- Start-up

Partner Info Request Document

INFORMATION REQUIRED BY PROPOSAL WRITERS

Please provide a short description of the company.
(This does not need to be detailed, an extract from your website will suffice)

Please provide details of any specialist equipment and facilities within your organisation that you believe will be of use during this project.

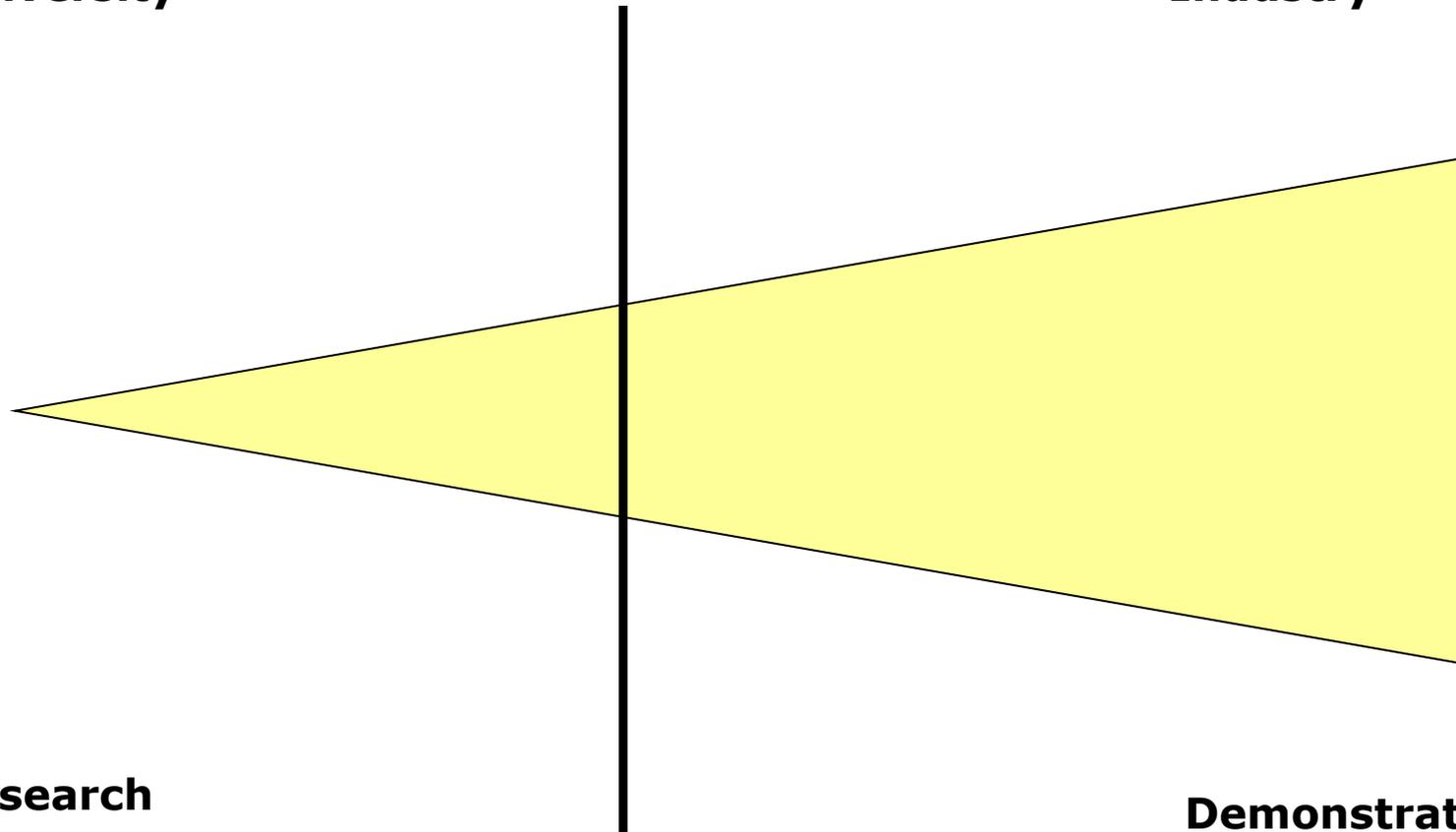
Please provide any other information that you deem to be of relevance for inclusion in the proposal.

Please provide short CV's of 2 people you envisage will be involved in the project within your organisation.
(Please include technical expertise and any past experience relevant to the project)

Partners' balance

University

Industry

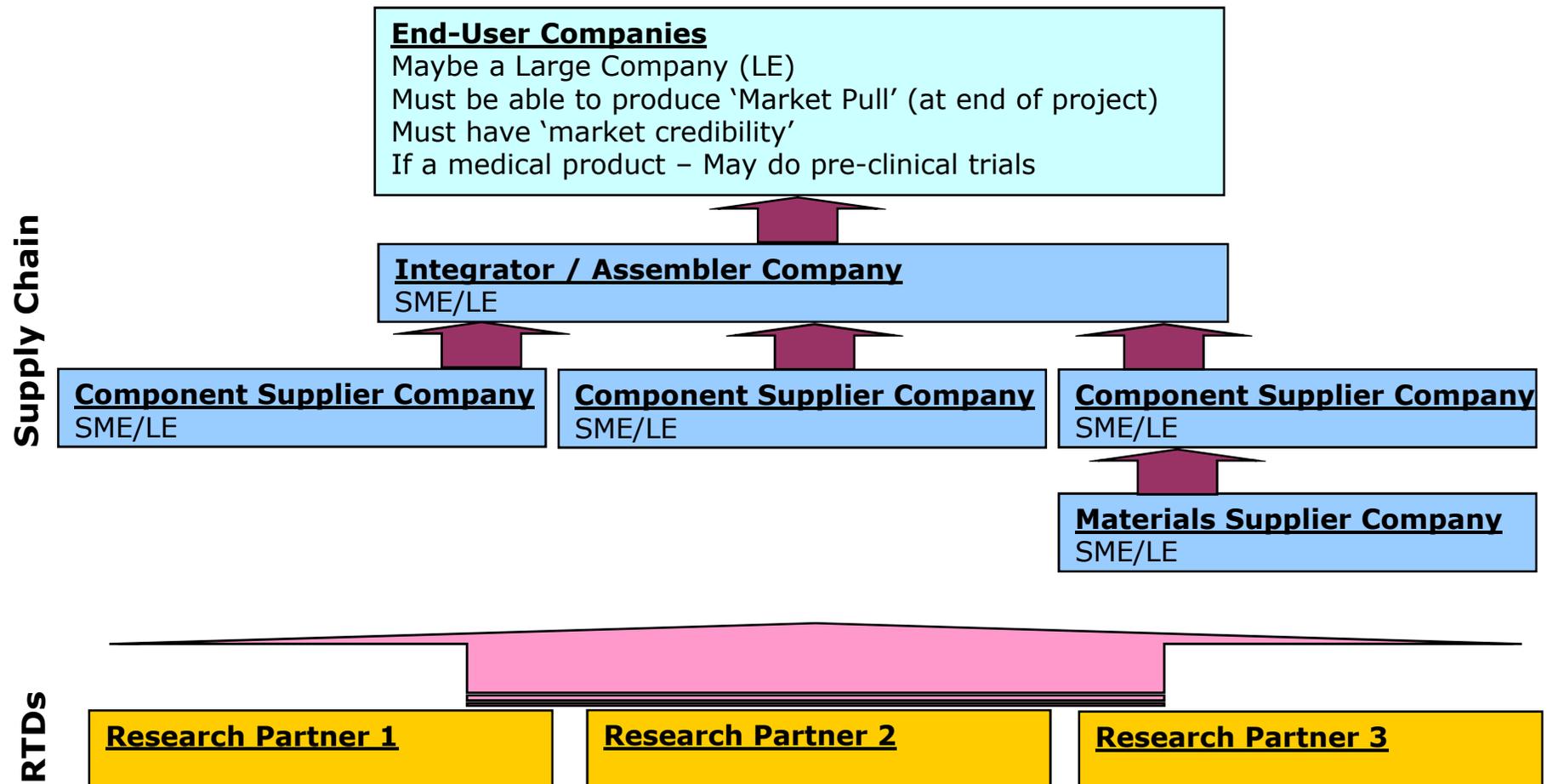


Research

Demonstration

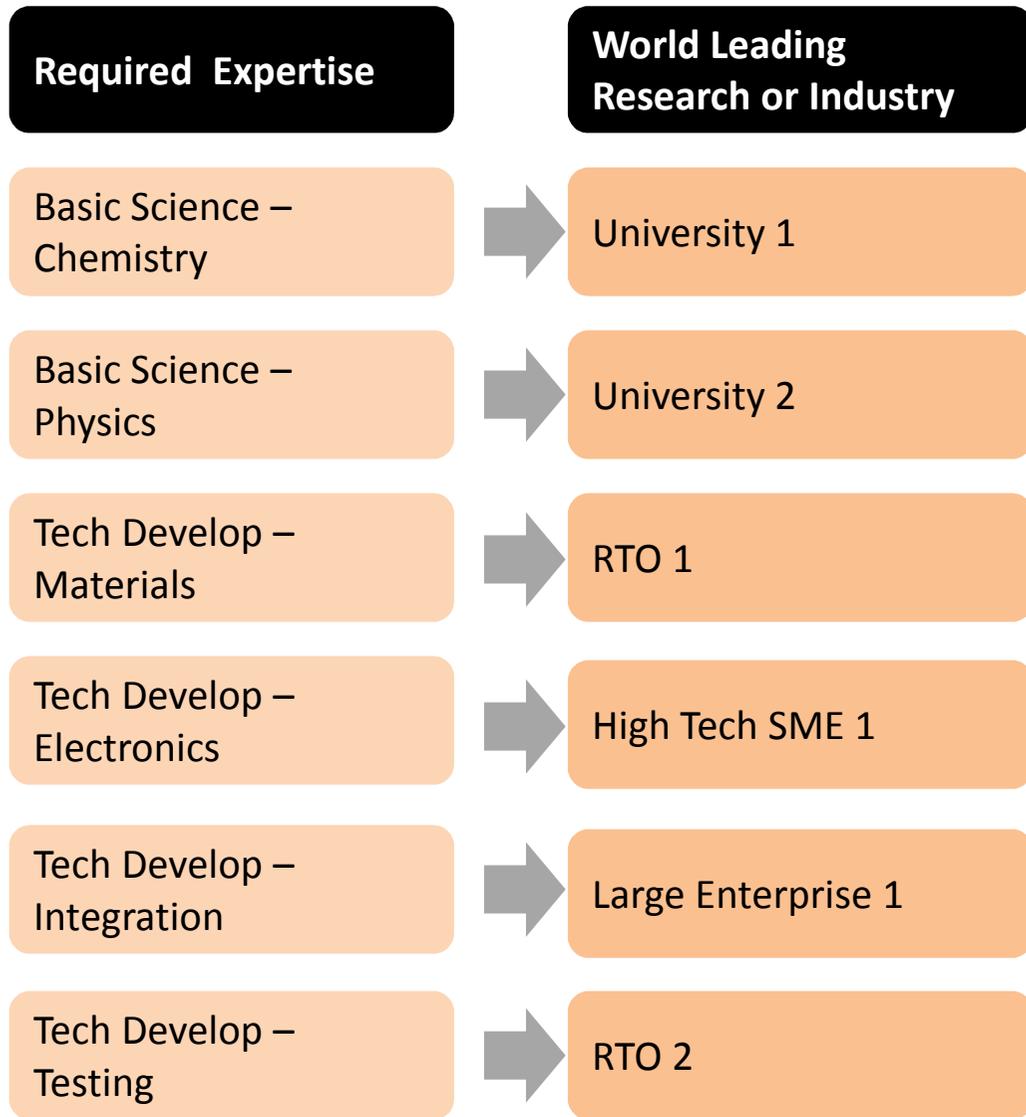
Consortium Structure

“Supply Chain” Approach (Near Market)



Consortium Structure

“Cooperation” Model (Distant Market)



Match required expertise to leading research centre

“View to exploitation”
– Supply Chain not necessary as typically further from market

Who to contact first?

- No right or wrong answers!
 - Project specific
 - Which will take longest?
 - Which could act as incentives for other partners?
- Temptation is to go for easy ones first
 - **LE** - the larger the company the longer it takes for a decision!
And good driver for others!
 - **S&T partners** – will help develop your concept
 - **Rare expert** - good point to start

Proposal Partner Meeting?

- You decide but at your own costs
- Can be good for
 - Refine project objectives
 - Agree workplan
 - Agree roles and responsibilities (WP leaders)

Partner recruitment

- **CORDIS** website
 - Partner service on the Cordis website
http://cordis.europa.eu/fp7/partners_en.html
- **Technology Platforms**
 - http://cordis.europa.eu/technology-platforms/individual_en.html
- **NCPs**
 - A dedicated NCP for each theme
<http://cordis.europa.eu/fp7/ncp.htm>
- Go to **EC events** (thematic) and meet with EC staff!
- **Think of**
 - Client / partner supply chain & contacts
 - Previous projects – but watch for over-exposure!
 - Kompass & other business directories

Eligible countries

Different categories of country and varying eligibility

- **Member States** - The EU-28
- **Associated Countries** – with science and technology cooperation agreements and contributing to the FP budget
- **Candidate Countries** – recognised as candidates for future accession
 - Former Yugoslav Republic of Macedonia
 - Iceland
 - **Turkey**
- **Third Countries**

International Cooperation

International Cooperation is encouraged

- Clear mutual benefit for knowledge generation and market expansion
 - With International Cooperation Partner Countries (ICPC)
ftp://ftp.cordis.europa.eu/pub/fp7/docs/wp/cooperation/cooperation-general-annexes201101_en.pdf
 - With Associated Countries
- Non-ICPC (high income) access the funding on a case by case basis
 - Usually NOT funded through FP7

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Budget Development

Information Provided is Based on Established FP7 Rules

New rules for H2020 have not been agreed yet!

BUT

If you can master FP7 – H2020 should be simpler

Project Budget Form

FP7 A3

Proposal Number ¹	Proposal Acronym ²
------------------------------	-------------------------------

<i>Financial Information (Specific Targeted Project)</i>											
<i>Participant n°²⁶</i>	<i>Cost model²⁷</i>	<i>RTD²⁸ or innovation-related³⁰ activities</i>		<i>Demonstration activities²⁹</i>		<i>Management activities³²</i>		<i>Other Activities</i>		<i>Total</i>	
		<i>Costs (€)</i>	<i>Requested grant to the budget²⁷ (€)</i>	<i>Costs (€)</i>	<i>Requested grant to the budget²⁷ (€)</i>	<i>Costs (€)</i>	<i>Requested grant to the budget²⁷ (€)</i>	<i>Costs (€)</i>	<i>Requested grant to the budget (€)</i>	<i>Costs (€)</i>	<i>Requested grant to the budget²⁷ (€)</i>
1		0	0			0	0	0	0	0	0
2		0	0			0	0	0	0	0	0
3		0	0			0	0	0	0	0	0
4		0	0			0	0	0	0	0	0
5		0	0			0	0	0	0	0	0
6		0	0			0	0	0	0	0	0
7		0	0			0	0	0	0	0	0
8		0	0			0	0	0	0	0	0
<i>(SUB-)Total³²</i>		0	0			0	0	0	0	0	0

Please use additional copies of form A3 if the number of lines is not sufficient

Financial Information

Usually A3 form is filled in by the project coordinator
Be aware of specific details!!

- LEs have lower funding levels
- Different activities have different funding levels
- Know the call specific eligibility criteria (Max funding, SMEs)
- Only Partners claiming €375k grant need an audit certificate

Types of activity

Activity Type	Funding Rate	Eligible Activities
RTD	75% - SMEs, Uni's 50% - LE, Other (H2020 – 100%)	Research Technological development Technical Coordination
Demonstration	50% - All (H2020 – 70%)	Validation testing of technology and prototypes Commercial demonstration
OTHER (typically <10% of funding)	100% - All	Exploitation planning Dissemination Intellectual Property Training
Management (typically <7% of funding)	100% - All	Consortium management Financial Administration Legal

Eligible Costs

Overarching Principle

- Costs actually incurred during pursuit of activities agreed in the Description of Work
 - Labour
 - Travel and Subsistence
 - Consumables
 - Equipment
 - Subcontract
 - Indirect Costs

Labour Costs

Cost to the employer for staff working on the project

- Staff grade
- Actual salary for that grade
- Taxes paid
- Pension contributions
- Other

Labour Costs

No of productive hours per month for staff member

- *The productive hours have to be clearly justified and must match the underlying time recording system*

= *Working days per year x No. hours worked per day*

12

Labour Costs

Typical Figures:

Working days

= Total days in year – Weekends – Statutory holidays –
Holidays – Sick leave allowance

$$365 - 105 - 9 - 20 - 6 = \mathbf{225}$$

Labour Costs

Calculating working hours per month:

Working days - 225

Working hours/day – 7.5

Working hours per year – 1,687.5

$$\text{Working Hours/month} \quad \frac{1,687.5}{12} = \mathbf{140.63}$$

Labour Costs

Calculating salary costs per annum:

Staff grade A: Management

Gross Salary: €85,000.00

Employment taxes (13%) = €11,050.00

Pension Contribution of Employer (20%) = €17,000.00

Total salary cost per annum = €113,050.00

Labour Costs

Calculating labour cost per month:

Staff grade A: Management

Total salary cost per annum = €113,050.00

Working hours per annum = 1,687.5

Hourly cost = €66.99

Cost per month: €66.99 x 140.63 = **€9,421**

Labour Costs

Calculating average labour cost per month:

Staff grade A: Management - €9,421

Time on project 12 person months = €113,052

Staff grade B: Technologist - €8,100

Time on project 24 person months = €194,400

Staff grade C: Technician - €6,750

Time on project 12 person months = €81,000

Total cost = €388,452 for 48 person months

Average cost per person month = $\frac{388,452}{48} = €8,092.75$

Labour Costs

Calculating average labour cost per month:

Do not forget potential salary raises!!!

Assuming an increase of 2.5% per annum on a 3 yr project gives:

Year 1	Year 2	Year 3	Ave
€8,093	€8,295	€8,503	€8,295

Travel and Subsistence Costs

Travel:

Based on actual cost of travel event and normal working practices within participant.

First Class and Economy allowed if normal practice

For proposal, work out/estimate the number of meetings needed per participant per activity and multiply by a standard rate.

Eg. €300 per return flight per person

Travel and Subsistence Costs

Subsistence:

Includes – Accommodation and Subsistence (meals, taxi etc)

2 Choices:

Actual Costs – MUST keep all receipts

Flat Rate – No need to keep subsistence receipts

For Proposal: Best to estimate based on Flat Rates

Typically use: €100 per night for accommodation

€100 per full day for subsistence

Travel and Subsistence Costs

For a typical project meeting:

No of meeting days – 1, arrive the night before, leave the evening after

One return plane fare

One night at hotel

One full day subsistence

Gives: €300 Flight – (Estimated flat rate)

€100 Hotel

€100 Subsistence

Total = €500 per meeting per person

Travel and Subsistence Costs

Per Partner build up as follows:

Partner 1: 10 MAN Meetings – Gives T&S of €5,000

15 RTD Meetings – Gives T&S of €7,500

Partner 2: 5 MAN Meetings - Gives T&S of €2,500

20 RTD Meetings - Gives T&S of €10,000

Consumables

Per Partner build up as follows:

Estimate the consumables required per WP/Task

Typical consumables:

Materials

Equipment specifically for the project that can not be used elsewhere (Eg; strain gauges, prototype tooling etc)

Computer software licenses

Make sure these are not covered under your normal 'Indirect Costs'

Indirect Costs - Overheads

Costs connected with infrastructures and the general operation of the organisation such as:

- Hiring or depreciation of buildings and plant
- Water/gas/electricity
- Maintenance
- Insurance
- Supplies and petty office equipment
- Communication and connection costs
- Postage

+ Costs connected with horizontal services such as:

- Administrative and financial management
- Human resources
- Training
- Legal advice
- Documentation, etc.

Indirect Costs - Overheads

Basic Rules of H2020 Collaborative Projects:

Flat Rate - 20%

These apply to **all** direct costs except Subcontract

Note: There may be additional rules applied for overhead allowances on direct costs!

Information needed from all partners

- Person Month Cost – For staff typically working on project
- Overheads model used
- Person months per task
- Consumables per task
- Travel days with overnight stays

Average Employment Costs

- Permitted under FP7
- Should be a fair representation of the salaries of those charging to the project
- Used to estimate the whole project budget
- Approval of the calculation method by submission of
 - Certificate on the Methodology for personnel and indirect costs
 - or a Certificate on the Methodology for Average Personnel Costs

Uncertain in H2020 at present

The Various Certificates

Certificate on the Methodology

- CoM used for the identification of personnel and indirect costs
- Not for the other costs

Certificate on average personnel costs

- CoMAv - methodology used to calculate the average personnel costs, must be submitted to the services of the EC for approval
- Not needed if there is a CoM

Certificate on the Financial Statements

- CFS provided only when a beneficiary reaches threshold of **€375,000**

Practical Exercise

BUDGET CALCULATION TRAINING

- Understand the interaction of EC funding limits
- Build a budget for a project

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Overview of Section 1

- **1.1 Clarity and Importance of the Objectives**
- **1.2 Soundness of the Concept**
- **1.3 Progress beyond the state-of-the-art**

Section 1.1

Clarity and Importance of Objectives

Section 1.1 Objectives

Describe in detail the objectives –

- Those achievable either within the funded project or through later developments soon after completion
- Objectives should be clear, measurable, realistic and time-based
- Milestones should be included and linked with section 3 (Implementation)
- Identify specifically the part of the work programme which the project addresses
- Explain the relevance of the of the project to the objectives and scope of the work programme addressed

Objectives

- **Objectives are the targets we set for completion during and immediately after the project:**
- **Objectives can be divided into:**
 - Global Objectives – *define the ‘overarching’ aim (objectives) of the project, integrating the scientific and technological objectives*
 - Scientific Objectives – *define and enable measurement and validation of the new scientific knowledge generated*
 - Technological Objectives – *define the technological developments required to achieve the overall aim (Global Objectives)*
 - Dissemination Objectives

'SMART' Objectives

- **All objectives must be SMART:**
 - **SPECIFIC** – concise statements defining exactly what will be done
 - **MEASURABLE** – quantified enabling evaluation of progress and success
 - **ACHIEVABLE** – possible to complete during the timeframe of the project
 - **REALISTIC** – feasible with the time, resources and expertise available
 - **TIME-BOUND** – completed within a specific timeframe, usually defined by deliverables and milestones

Example of a SMART objective

- Which objective is SMART?
 - *To develop a new flame retardant system for polymer products that meet the required standards*
- OR
 - *To develop an intumescent fire protection chemistry for polypropylene electronic casing applications demonstrating commercial competitiveness with existing halogenated materials, achieving a flammability rating of UL94-V0 with <15% additive loading and retaining >90% tensile strength properties (>30MPa) [Milestone 1]*



Relevance to the topics addressed by the call (1)

- **It is essential that you do not just state relevance to the call... but that you demonstrate a complete match!**
- **For ‘Research for SME Projects’ demonstrate that:**
 - there is a competitive threat to the SME participants (the need)
 - a new product or process has been identified that will improve the competitive position for a collaborating pan-European supply chain of SMEs (the clever idea)
 - the project addresses a specific scientific or technological barrier (the identified limitations to making the idea work)
 - there is a need for the outsources of R&D activities by the SMEs
 - the SMEs will undertake activities to validate and exploit the results
 - the project will achieve an impact and benefit for Europe

Relevance to the topics addressed by the call (2)

- **For Cooperation projects:**
 - Create a section entitled ‘Relevance to the topics addressed by the call’
 - Create subheadings using each of key statements in the call text and define how the project addresses each of these statements
- **Example:**
- *Research proposals should focus on developing **commercially viable materials for halogen free flame retardants**. The proposals should include a credible validation and demonstration of the required fire classification for the intended applications. It would be beneficial if the flame retardant could be produced from renewably sourced raw materials. The proposals should follow a life cycle approach at both the level of material and selected products/applications. Up to 10% of the requested contribution may be allocated to development of other uses of the proposed materials. In order to ensure an efficient implementation and maximum impact of SME-related activities, the leading role of SMEs with R&D capacities will be evaluated.*

Section 1.2

Soundness of Concept

Section 1.2 Concept

Describe in detail the concept –

- Describe the overall concept, main ideas, models or assumptions
- Describe any gender aspects
- Describe the approach, including methods for research, demonstration/piloting, first market application and explain why necessary
- Describe the knowledge involved – highlighting what is known and what is to be developed (Transdisciplinarity)
(Science, technology, markets, standards, regulations etc)

Explaining the Project Concept (1)

- **This is your ‘Logic train’**
- **Explain the key principles and justification for the project:**
 - *What are the reasons creating the need for a new solution?*
 - *Who are the stakeholders and how does the need effect them?*
 - *What are the limitations in the state-of-the-art for addressing this need?*
 - *What is the clever project concept for overcoming the limitations in the state-of-the-art and addressing the identified need?*
 - *What will it do and how will it benefit the stakeholders?*
 - *What are the limitations preventing it being done today?*
 - *What is the clever S&T approach for overcoming these limitations?*
 - *What is the benefit and impact for Europe?*

Explaining the Project Concept (2)

- Assume the reader is a technical non-expert – evaluators are selected from a wide variety of backgrounds
- Be concise, use bullet points and ensure that there is ‘structure and flow’ to your description
- Provide only the required S&T background to understand the key principles. Save the details for your state-of-the-art review
- **‘First Impressions Count’ – most evaluators form their opinion whilst reading your abstract and section 1 !!!**

Section 1.3

Progress Beyond the State of the Art

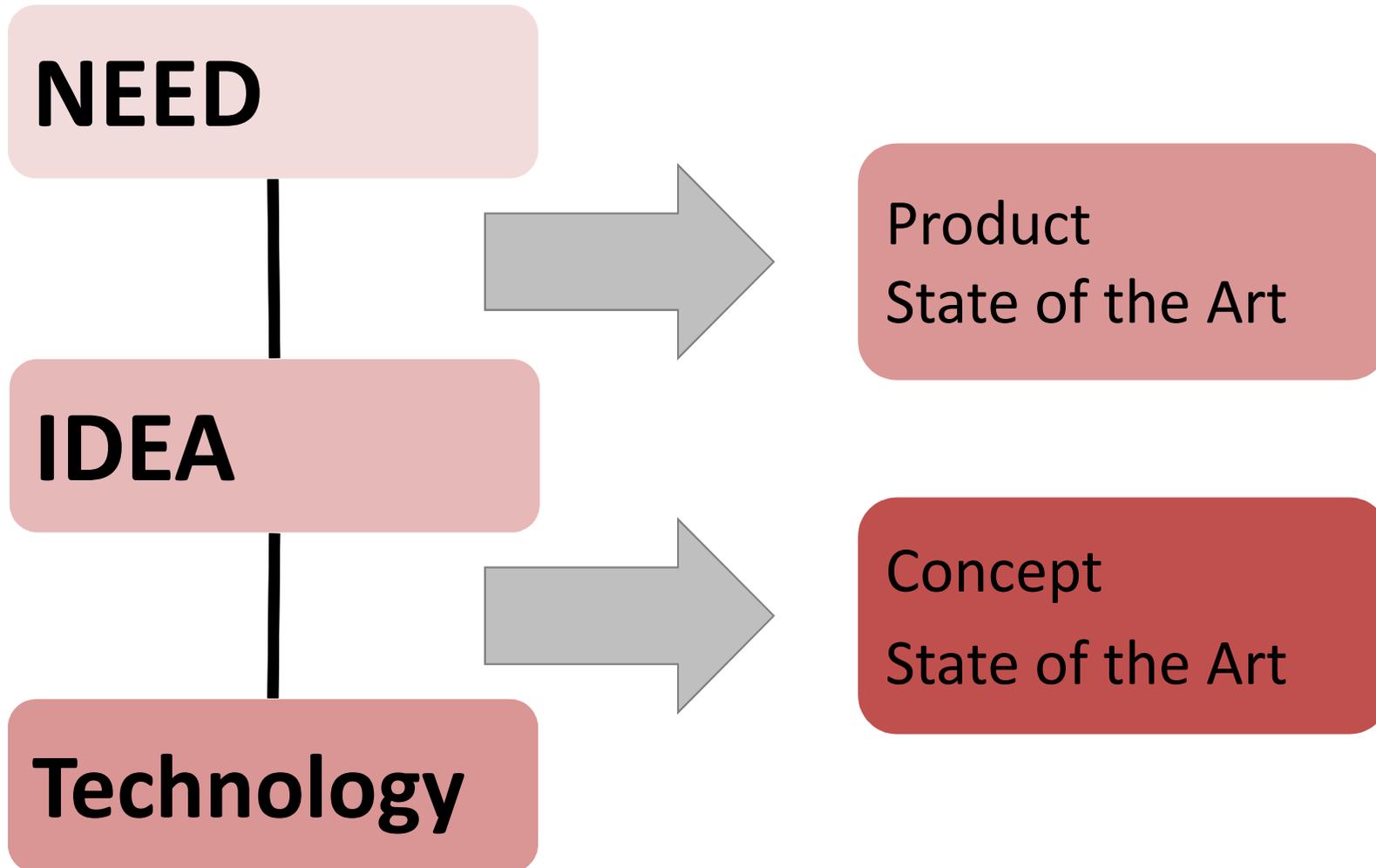
Section 1.3 Progress beyond S of A

Describe in detail the advancement in the State of Art

- Describe the advance which the project will make. This should include:
 - Concepts involved
 - Problems to be addressed
 - Approaches and methods to be used

Product and Concept State of the Art

TurkeyⁱⁿFP7
Cooperation | Research | Technology



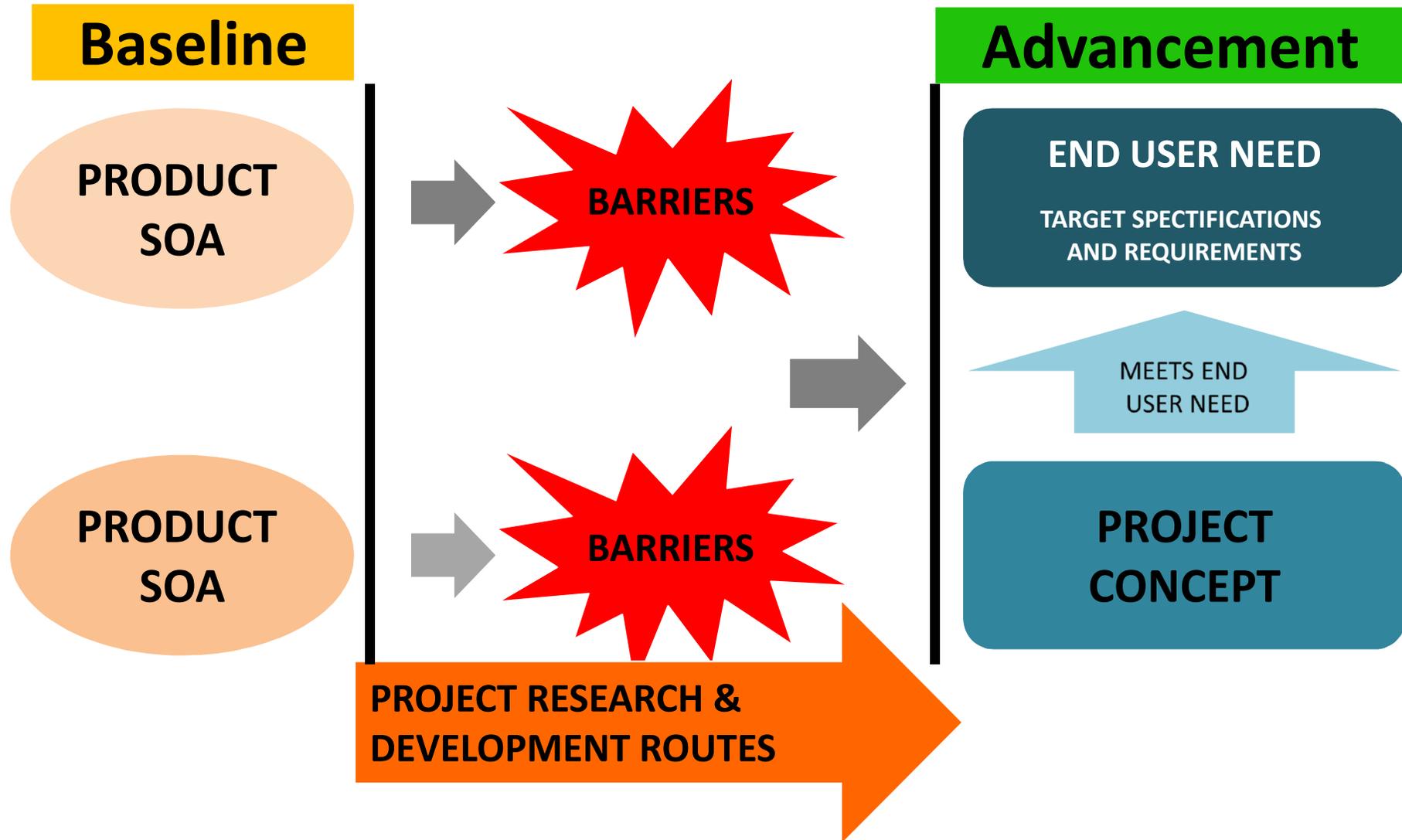
Product Specific State of the Art

- **The state of the art for existing solutions that seek to satisfy the need or problem:**
 - Describe **existing commercial products** and their inability to fully meet the end-user need (Technical limitations of existing products)
 - Discuss **alternative methods** that could be used and their inability to fully meet the end-user need (Competing Techniques)
 - Discuss **emerging research** that could be relevant and its inability to provide a solution to fully meet the end-user need
 - Summarise the limitations of the product state of the art to fully meet the end user need; and hence the need for further research

Concept Specific State of the Art

- **The state of the art for the science and technology relevant to the project concept:**
 - Describe how the overall product or process concept will work
 - Discuss the state of the art for each of the scientific and technological areas relevant to the project concept (state of the art on which the projects approach is based)
 - Demonstrate that the S&T approach selected for the project is feasible (discussing theory and scientific evidence)
 - Summarise the specific limitations and barriers in the state of the art that prevent the project concept from being realised today
 - Define the required research and development activities
- **It is important to demonstrate that whilst the scientific and technology approach for the project concept is sound and feasible, there are specific limitations and barriers that need to be overcome through further R&D**

Progress beyond the State of the Art



Approach for defining progress beyond the State of the Art

- Undertake a detailed literature review of relevant commercial products, patents, publications and scientific research etc...
- **Analyse** each individual item within the Product and Concept state of the art against the specific requirements and objectives of the project
- Identify the **specific limitations** of the state of the art in meeting the end-user need (Product SOA) or prevent the project concept from being achieved (Concept SOA)
- **Quantify** the capability gap between where the state of the art is now (the baseline) and what is necessary to meet the project objectives
- Define the proposed development routes for overcoming the limitations (bridging the gap) and provide supporting **theory** and **evidence**

Contribution to advancement of knowledge / technology progress

- **Define how the project concept contributes to the advancement of knowledge and technology progress**
 - Summarise the specific limitations in the Product and Concept state of the art
 - Describe the specific advancements in knowledge and technology for each area
 - This is often structured by creating sub-headings for the overall product and each technology component
- **Provide an overview of the existing patent situation:**
 - Identify a set of 3 or 4 of the closest patents to the concept
 - Provide an explanation of why these patents do not conflict with the project concept
 - Define the innovative and patentable aspects of the project

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What is Intellectual Property?

What is Intellectual Property (IP)?

Product of the brain:

- Cannot be protected as such – it must first be reduced to a physical entity e.g. written down
- Must be original i.e. **novel and not copied**
- Has no legal meaning or status until it is recorded and, where necessary, registered
- Otherwise it is just like normal property – cars, computer software, real estate, etc.



IP is like real estate, for example, it can be:

- **Owned** – with an intrinsic value determined by the market
- **Worked** – as a farm would be worked or offices used
- **Bought and sold** – including at auction
- **Licensed** – hired out to, or rented from, someone else
- **Mortgaged** – uncommon outside of the USA
- **Left as an inheritance**
- **Given away**
- **Unused**
- **Abandoned** – e.g. by ceasing to pay maintenance fees
- **Destroyed** – e.g. by publication before patent protection

Types of IP

Unregistered

- Secret know-how
- Writings, works of art, photos, etc.
- Unregistered designs
- Software
- Databases
- Semiconductor designs
- Unregistered trademarks

Registered

- Patented technology
- Asserted/recorded © materials
- Registered designs
- Registered trademarks
- Breeds of plant
- Internet domains

Do I own any IP?

Almost certainly!

- Do you hold any patents?
- Do you own a domain name?
- Have you created a logo or get-up for YourCo?
- Do you have a customer database?
- Have you built some of your own software?
- Have you developed a secret in-house process?
- Do you do some or all of your product design?
- Do you have an in-house magazine?

IP control vs ownership

If you **own IP**, you can of course, do all those things with it that were listed earlier.

However, you may not want to own IP but simply be free to **use** it for technical and commercial purposes e.g. in your collaborative R&D project.

In that case, you need a **licence** from the owner putting you **in control of their IP** for your **use**.

What are Intellectual Property Rights?

What are IP Rights (IPRs)?

- When you create something **novel (original i.e. not copied)**, that something is almost always capable of attracting **rights of ownership**
- In some cases these rights are **automatic** e.g. copyright in texts, pictures, databases, software, etc. but they may need to be **asserted and registered** for maximum protection
- In some cases, they are **not automatic** e.g. you can apply for a patent to protect a novel technology and you have the option of registering trademarks, designs and breeds of plants – **non-automatic rights must be bought**

Why would I want Intellectual Property Rights?

Why would I want IPRs?

Primarily people hold IPRs because they can provide the owner with a **market monopoly** e.g. patents can protect technologies for up to 20 years.

IPRs have an **intrinsic value** depending on how strong they are and how the market perceives the usefulness of the products or processes they protect.

IPRs can therefore **add value**
to an enterprise's **bottom line**
and
can be e.g. **sold or licensed**
to **realise revenue** from the underlying IP.



Why would I want IPRs?

Company	Equity = Net Tangible Assets [\$ Bn]	Intangible Assets = Intellectual Property [\$ Bn]	Market Value (2002) [\$ Bn]
Microsoft	4.5	44.6	49.1
IBM	22.5	31.5	54.0
McDonalds	6.2	20.0	26.2
Coca Cola	5.2	73.4	78.6



Why else would I want IPRs?

- Your ideas are protected from **illegal copying** (infringement of your IPRs) in all the jurisdictions where they are registered/asserted
- They are essential if you need to raise any **Venture Capital**
- IPR ownership allows you to issue **licences** in return for **royalties** and/or **lump sums**
- BUT! It might not be the best route for an SME
 - can you afford to maintain your IP?
 - can you afford to take infringers with big bank accounts to court?



IPR overview for collaborative R&D project results

Patents	Utility Models	Trade Marks	Industrial Designs	Copyright
Technical inventions	Technical inventions	Marks for products, services	Designs	Creative works
<ul style="list-style-type: none"> • New • Inventive step • Industrial application 	<ul style="list-style-type: none"> • New • Inventive step • Industrial application [Protectable subject matter can be restricted]	2D or 3D pictures, words, names, colours or sounds	Shape	Design documents, software, databases, semiconductor designs
20 years	+/- 10 years – variable across Europe	10 years – indefinitely renewable	5 years – renewable up to 25 years	Author's lifetime + 70 years
<ul style="list-style-type: none"> • National Patents • European patent application • PCT applications 	National utility models (not available in all EU)	<ul style="list-style-type: none"> • National TM office • Community TM (OHIM) • International registration 	National industrial designs (not available in all EU)	
<ul style="list-style-type: none"> • National patent offices • EPO • WIPO 	National patent offices	<ul style="list-style-type: none"> • National TM offices • WIPO • OHIM 	<ul style="list-style-type: none"> • National offices • WIPO • OHIM 	<ul style="list-style-type: none"> • Automatic • No registration • Societies can be joined

IP Protection - Patents

- A **patent** protects how a product works and its application
- In order to be deemed patentable a product must be
 - Novel
 - Inventive
 - Unobviousand be
 - new technology
 - an improvement upon existing technology
 - a new combination of existing technology.

IP Protection - Patents

- Patents take between 18 months and 4½ years to be granted but as soon as you have filed your patent application no one globally can file the same application and it be granted
- Patents last a maximum of 20 years, provided you maintain the annual renewal fees
- Patents stop anyone producing your product within the country you hold a patent
- The most far reaching patent you can obtain is the PCT (Patent Cooperation Treaty) which covers you in 142 countries globally, other grouped options include the EPC (European Patent Convention) covering the majority of Europe and some extension states

IP Protection - Patents

- Exclusions from patentability
 - Scientific theory or mathematical method
 - Literary, dramatic, musical or artistic work or any aesthetic creation
 - Scheme, rule or method for performing a mental act, playing a game or doing business
 - Programs for a computer
 - For software, sources code cannot be patented
 - What the software does and the underlying algorithms may be patentable
 - Other exclusions for biotechnology, including cloning

IP Protection – Registered Design

- A **registered design** protects the external shape and design of a product and this can be extended to include
 - Lines
 - Contours
 - Colours
 - Shape
 - Texture
 - Materials
 - Decoration
- In order to be registered a design must be deemed new and original

IP Protection – Registered Design

- Registered designs last a maximum of 25 years, provided you maintain 5-yearly renewal fees
- The most common design registration application is an EU Community Registered Design, which covers over 30 European countries
- In some countries, including USA, a registered design is known as a Design Patent or an Industrial Design registration
- There is an International Registration of Industrial Designs known as the Hague Agreement, but this only covers countries that adhere to the registered design laws and not design patents, therefore does not include the USA.

IP Protection – Trademark

- **Trademarks** protect logos, symbols or names of products or businesses
- Trademarks do not have to be deemed 'new' but must still be seen to be 'original' in relation to the branding of the company
- Trademarks can last indefinitely but must be renewed every 10 years to be kept in force
- Can also apply for a EU Community Trademark which covers 30 European Countries
- Also similar to registered designs, there is an international trademark application known as the Madrid Agreement

IP Protection – Copyright

- **Copyright** applies to any original work
 - Literature
 - Artwork
 - Music
 - Computer programs
 - Databases/websites
- Copyright is an automatic right and does not require any formal form of registration to be applied to the work
- To enforce Copyright it is no longer important to put the © symbol on any material to be protected

IP Protection – Copyright

- Copyright does not protect concepts or ideas affiliated with the work but just the work itself
- Copyright stops others from copying, adapting, distributing, renting or performing that particular work without prior permission from the copyright owner
- Copyright typically lasts for 70 years after the death of the owner

Key IPR issues in collaborative R&D

Key IPR issues in collaborative R&D – definitions

Background IP – What each Partner has created and **owns** prior to the Project or has developed **at their own cost** during the course of the Project

Foreground IP – **Results of the Project** created after its start date

Access Rights – Licences issued/granted between the partners for **use** of both the BGIP and the FGIP during the Project and for the **exploitation** of the FGIP after the project has finished

Key IPR issues in collaborative R&D

- Management of the IP during and after the project
- Determination of Access Rights for the **specific** BGIP and FGIP in your project
- Determination of inventors and ownership of new IP generated in the project
- Drafting of patent applications – who pays?
- Maintenance of IPRs e.g. paying patent application fees



Management of BGIP and FGIP – the Consortium Agreement (CA)*

- BGIP brought to the project can be listed in an Annex to the CA and/or BGIP specifically not available to the project can be listed
- Access Rights to BGIP and FGIP will be determined along with their cost during and after the project (e.g. access to specified BGIP on a royalty-free basis for the duration of the project)
- Joint ownership of FGIP issues can be addressed
- Specific clauses relating to software development can be included e.g. relating to use of open-source code

IPR differences between R4S and STREP projects

FP7 R4S

- SMEs continue to **own their BGIP**
- SMEs pay the RTD Performers' invoices to get **access** to the **project results**
- SMEs can **own** and/or get **licences to use** the project results (FGIP)
- Ownership, access and exploitation issues are defined in the Proposal, in the Description of Work (DoW) and, ultimately, in the **Consortium Agreement (CA)**



IPR differences between R4S, and STREP projects

STREPS and Large Integrating Projects

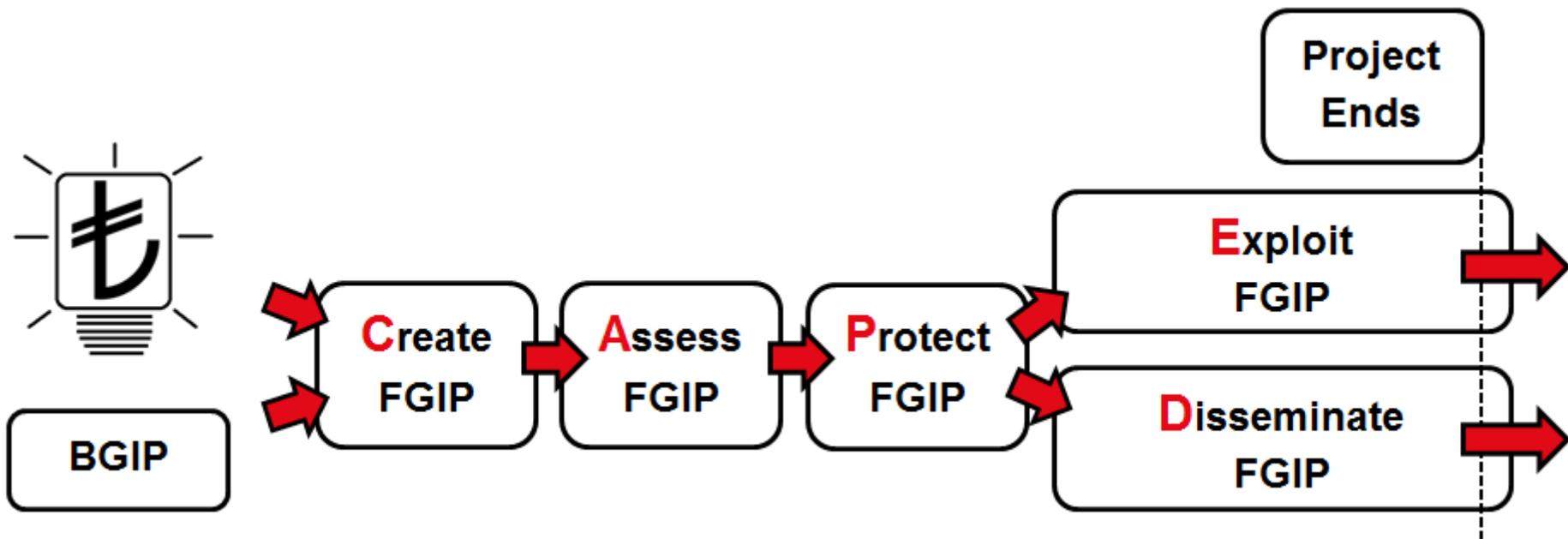
- Partners can be LEs, SMEs, RTOs, UNIs, etc.
- Each partner continues to own its BGIP
- Each partner gets to own the FGIP it creates
- Jointly developed FGIP is jointly owned (by default)
- Each partner gets access to the results of others, if they are needed for use i.e. for development and exploitation of the project results – although they may need to pay
- Ownership, access and exploitation issues are defined in the Proposal, in the DoW and, ultimately, in the **CA**

The IP life cycle in a collaborative R&D project

CAPED

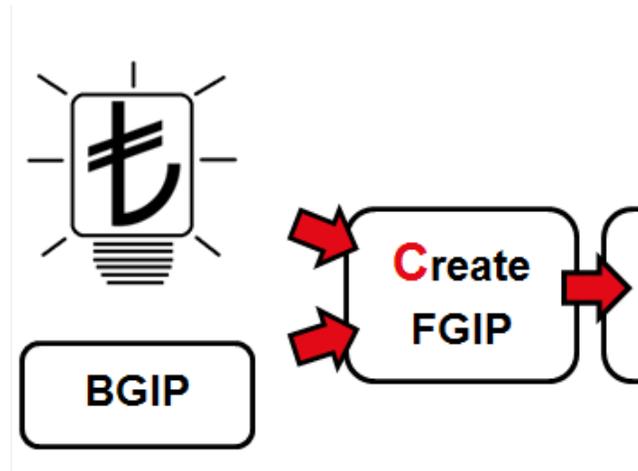


The IP life cycle in a collaborative R&D project – **CAPED**



Creating IP in a collaborative R&D project

- **Commercial ideas** are generated all the time
- They usually arise in the context of existing (Background) IP
- Sometimes they come completely out of the blue or from **brainstorming sessions**
- The R&D in the project is designed to make these ideas concrete in the form of **a prototype** or **alpha and beta software versions**



Assessing IP arising in a collaborative project

Once created and identified, the FGIP must be assessed for:

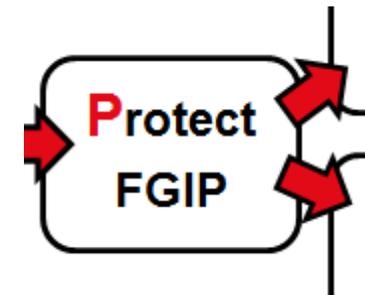
- Market attraction:
 - Unmet need
 - Focus groups*
 - Competitor analysis
- Feasibility of commercial realisation:
 - Can it be manufactured in enough numbers?
 - Can it be manufactured with sufficient margin?
 - Do the logistics make sense?



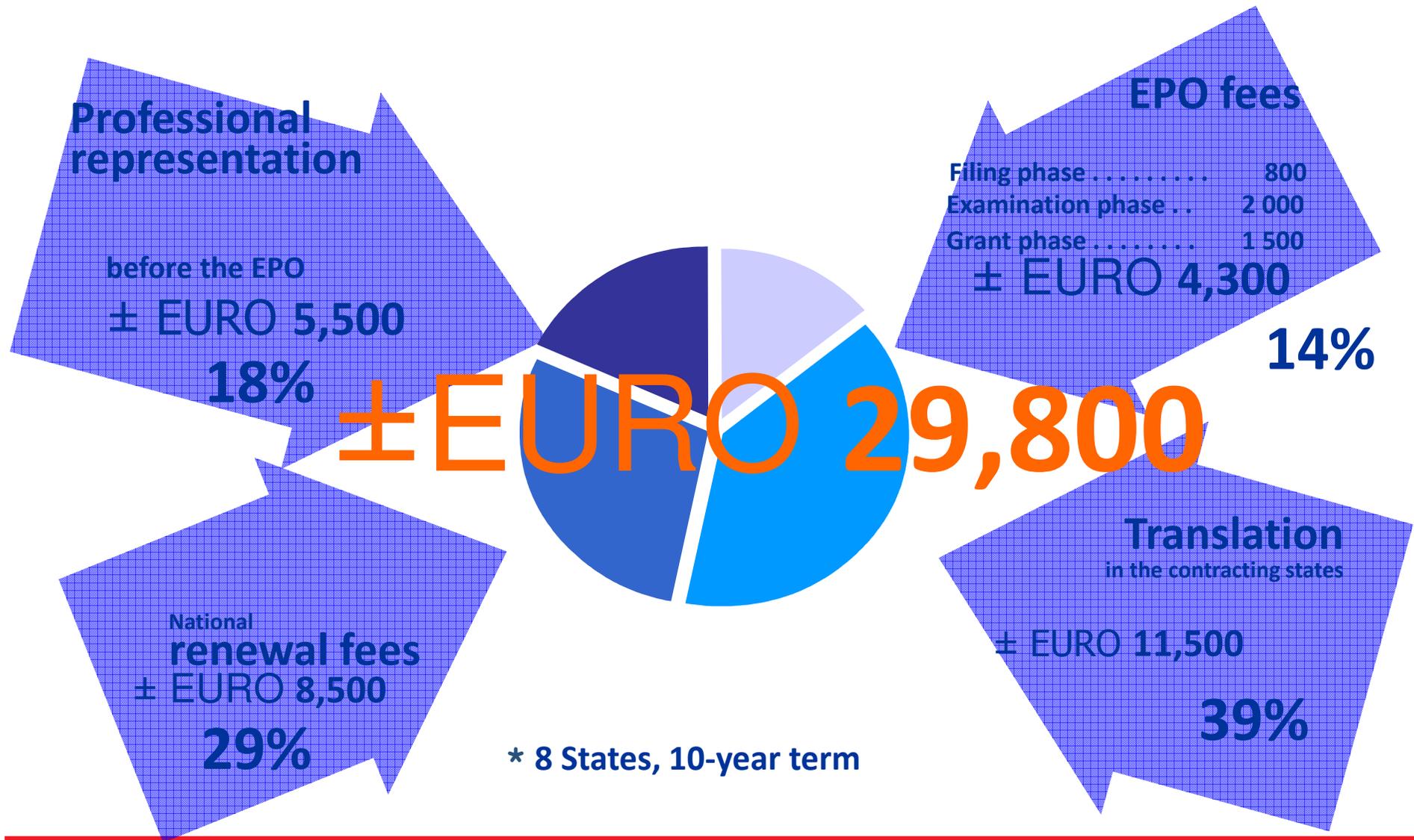
*Note that the FGIP must be protected (by e.g. NDA) before exposure to the public in any forum.

Protecting IP arising in a collaborative project

- Databases, software, design documents, semiconductor designs, etc., automatically attract **copyright** or the equivalent specific right
- **Technical inventions** can be protected by **patents** (and **utility models** in some countries)
- BUT can you afford patent protection:
 - application and maintenance fees?
 - cost of litigation (for or against you) or insurance?
- Maybe better to keep it a **secret** and make your employees do the same – through **contracts** or **NDA**s



IP Protection – Patent Cost

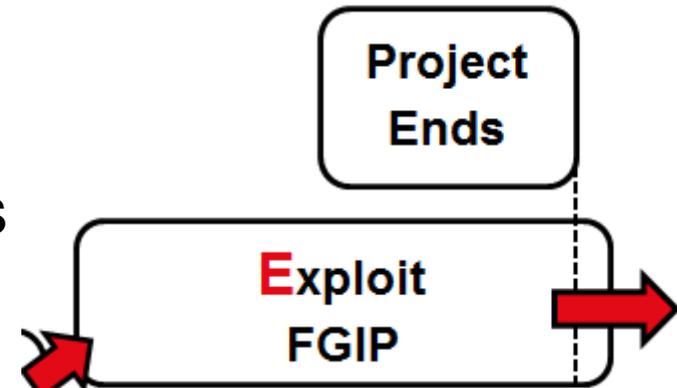


Patent Budgeting

- Patenting costs in FP7 proposals
 - Budget €6k per patent for costs incurred **during** the project
 - Should cover preliminary application and PCT

Exploiting IP arising in a collaborative project

- There are many routes to exploitation of FGIP:
 - Form a **Joint Venture** with the project partners
 - Manufacture products or deliver a service yourself
 - **Licence** the FGIP to third parties
 - Create a **franchise operation**
 - Sell or give the FGIP to a third party (other project partners permitting, of course!)
 - Enter **new markets**, expand existing markets, **export products and services** for the first time



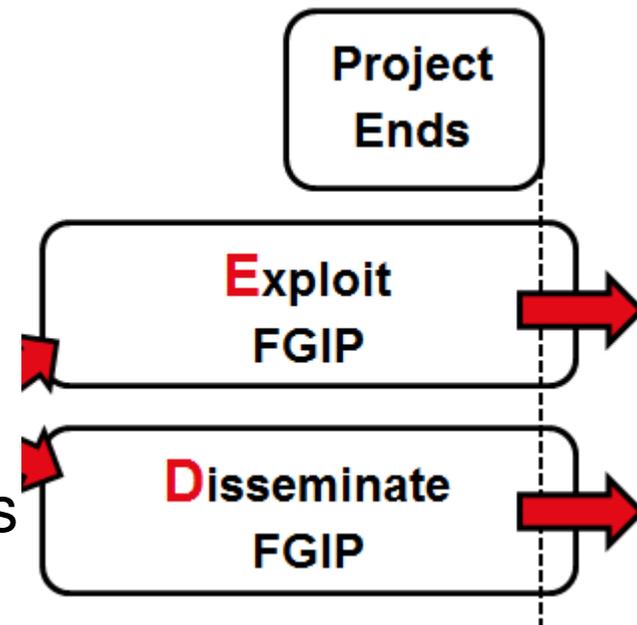
Disseminating IP arising in a collaborative project

Once the FGIP is protected, **tell the world!**

- trade fairs and exhibitions
- conferences, seminars and workshops
- trade magazines
- project website and magazine
- copyright articles in newspapers
- TV and radio appearances

Or

- **just keep it secret!**



Practical example 1

What kinds of IP/IPRs do Coca-Cola hold in this bottled variety of their famous drink?



Practical example 2

What types of technology could Apple protect in their iPhones?



Apart from patents – what other kinds of IPRs could they claim/register?

Practical Exercise 2 - Answers

Aesthetic aspects
of the telephone

Brand name
of the manufacturer and of the
product, logos, etc.

Operating software
integrated interfaces,
games, etc.

Layout-design
of electronic circuits

**Industrial
designs**

**trade
marks**

copyright

**topography
of integrated
circuits**



Innovative

antenna, touch screen,
or battery, etc.

**patents
utility models**



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FP7 Project Proposal Preparation, Submission and Project Management Training Programme

Day 1

25th November 2013 – Dedeman Hotel, Gaziantep

