



Best Practices on Innovative Financial Instruments to Boost Investments in Energy Efficiency Projects

Vlasis Oikonomou, vlasis@ieecp.org
Institute for European Energy and Climate Policy



Outline of Presentation

Brief
Introduction to
PROSPECT

Why
*innovative
financing*

Learning
from *best
practices*

Useful
resources

Q&A

About PROSPECT

Title:	Peer Powered Cities and Regions — PROSPECT
Funding:	European Union's Horizon 2020 Research and Innovation Programme
Started:	June 2017
Duration:	36 Months
Legal Coordinator:	Institute for Housing and Urban Development Studies BV - IHS
Scientific Coordinator:	Institute for European Energy and Climate Policy Stichting - IEECP
Participants:	10
Contract No:	H2020-EE-09-2016-2017/752126

About PROSPECT | Peer Powered Cities and Regions

Key questions:

- How can public authorities **carry out simple energy interventions** to secure investments for joint initiatives that span local and regional boundaries?
- What can public authorities **learn from successful and less successful projects and initiatives** and about planning and design phase to accessing funds, developing financing schemes or better access to finance, tracking impacts and benefits through monitoring and reporting systems?
- What kind of support do they need to **enhance their capacity**, to help deliver an **energy transition**?

Need for 'peer to peer learning for public authorities – step up public authorities' capacity to help deliver the energy transition.



PROSPECT

www.h2020prospect.eu
#H2020PROSPECT



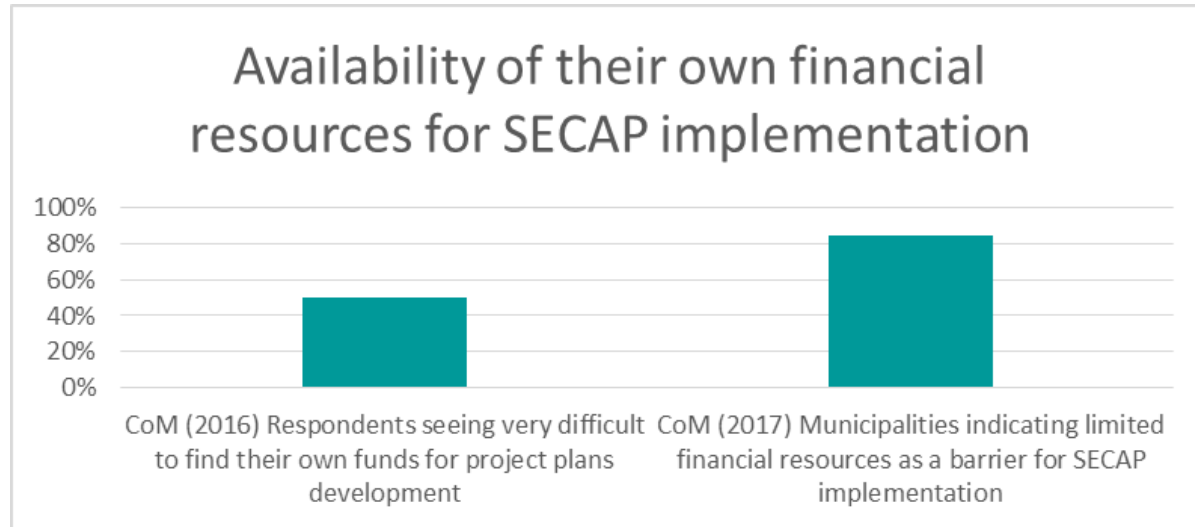
Main Barriers Faced by Local Authorities



Source: Covenant of Mayors (2017). Needs Assessment Survey

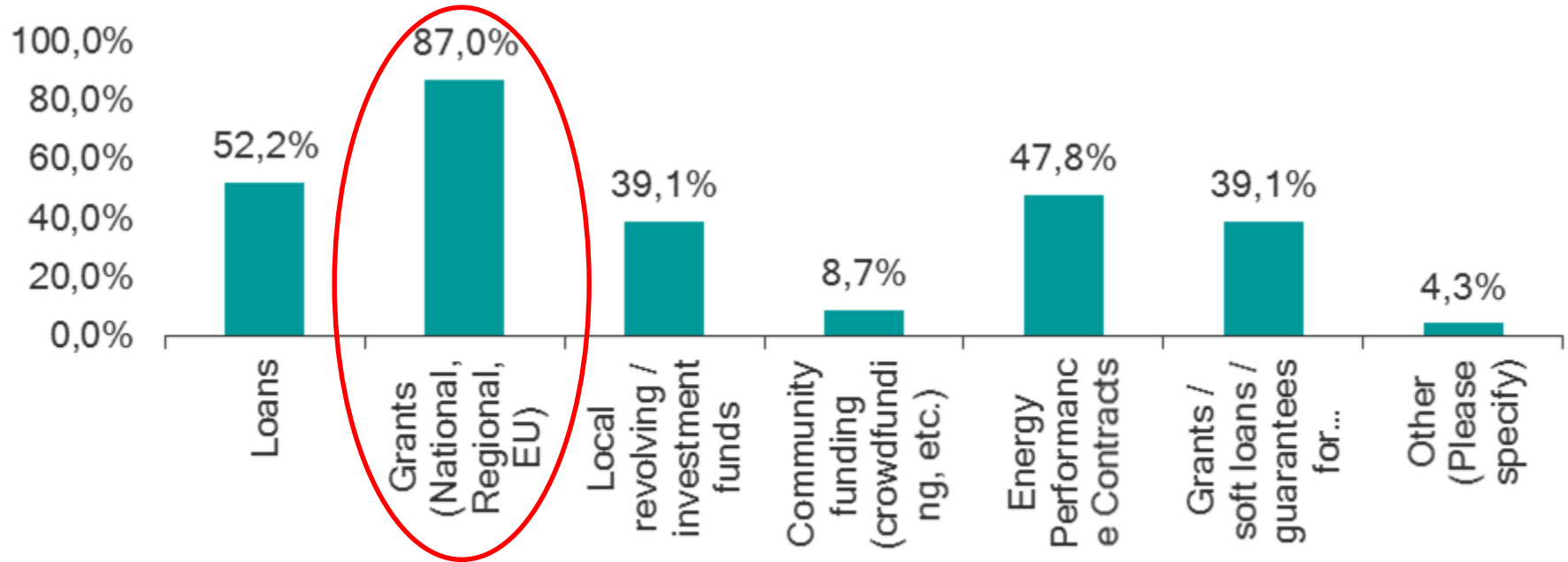
Limited Financial Resources

- **Financial:** local authorities' budgets are not sufficient to meet sustainable energy and climate goals



Sources: COM Office (2016): "Sustainable energy investment in European local authorities" & Covenant of Mayors (2017): "Covenant community's needs for SE(C)AP design and implementation"

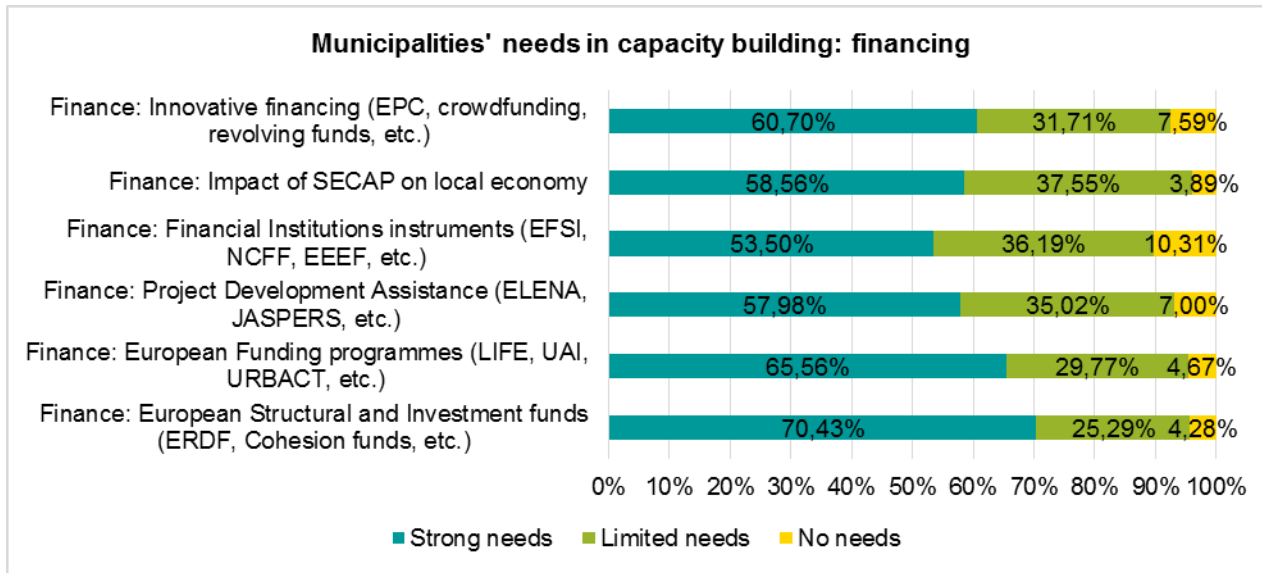
Experience with financing mechanisms



Source: Financing your sustainable energy projects. Survey

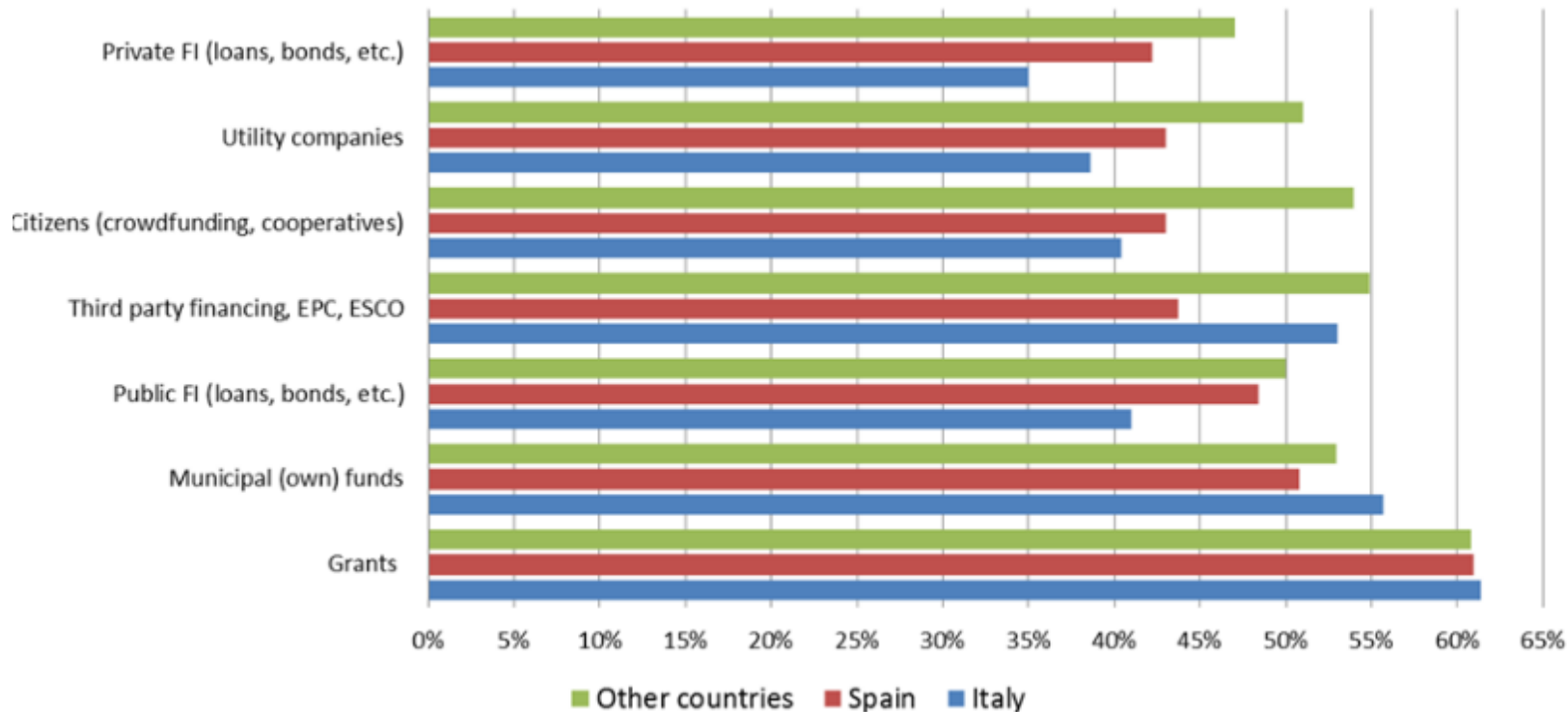
Lack of Technical Expertise

- **Capacity:** a lack of information on financing is most prevalent



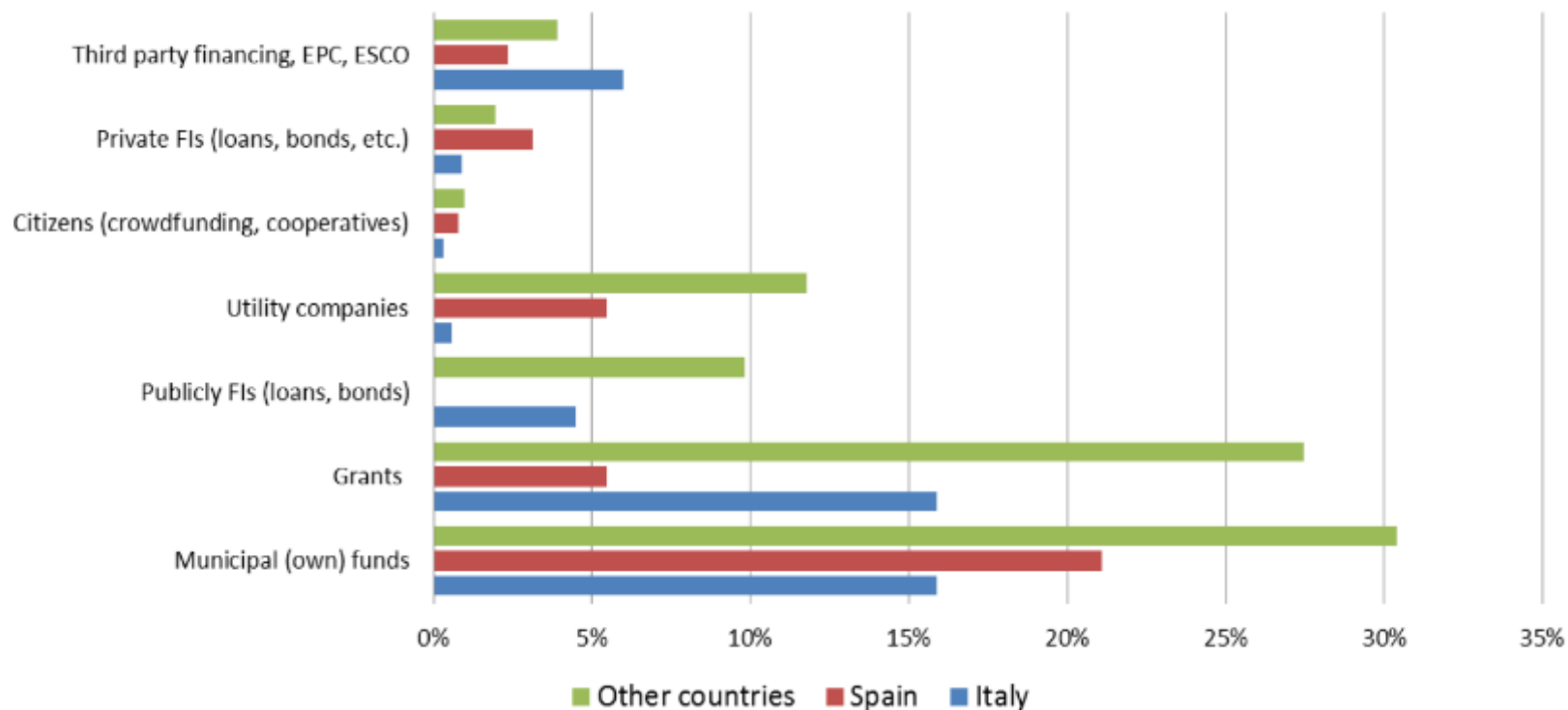
Source: Covenant of Mayors (2017). Needs Assessment Survey

Interest in various financial sources



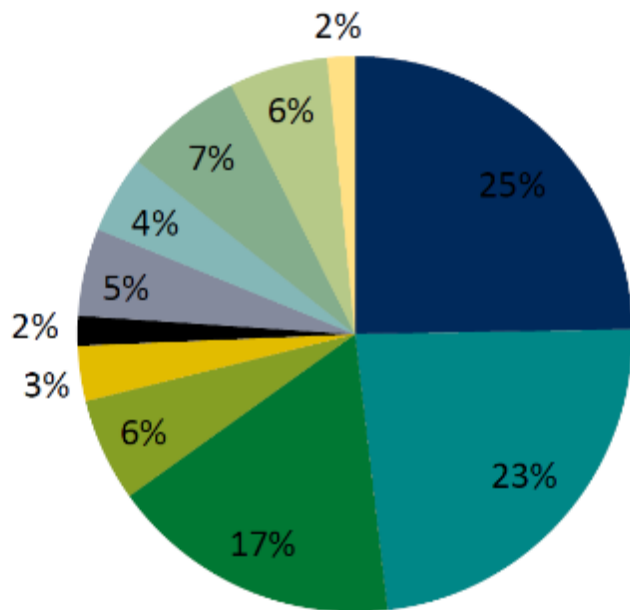
Source: COM Office (2016): "Sustainable energy investment in European local authorities"

Experience with innovative financing mechanisms



Source: Covenant of Mayors. Sustainable energy investment in European local authorities

Distribution of EU Projects



- Public lighting
- Municipal building EE
- Municipal building RES
- Social housing
- Private housing
- Tertiary buildings
- DHC
- Public transport vehicles
- Water, waste
- Solar photovoltaic
- Wind

Summary

Financial

- Grant funding, upon which local authorities are already heavily reliant, is not sufficient to close the gap in energy financing
- Local authorities tend to have very little experience with, and a high interest in learning about, innovative financing mechanisms

Capacity

- Local authorities preferred to direct their sustainable and climate investments towards public buildings and public lighting
- Conversely, the desire to place such investments in the areas of private buildings and in transport is very low

Outline of Presentation

Brief
Introduction to
PROSPECT

Why
*innovative
financing*

Learning
from *best
practices*

Facilitating
*learning
exchanges*

Q&A

Innovative Financing

Non-traditional way of raising funds and facilitating sustainable energy and climate investments for cities and regions by mixing different sources (own fund, public and private funds) or engaging different partners (e.g. citizens, private sector) aside from established financial institutions (e.g. banks)



Relevant Sectors for Innovative Financing

Public
Buildings

Private
Buildings

Transport

Public
Lighting

Cross-
Sectoral

Learning Modules	Description
Public Buildings	Covers buildings and facilities owned, managed, or controlled by public authorities. Facilities refer to energy consuming entities that are not buildings, such as wastewater treatment plants.
Private Buildings	Covers buildings owned, managed, or controlled by private individuals or corporations. These refer primarily to the tertiary sector (services), such as private companies, banks, commercial, and retail activities, hospitals, etc. and residential buildings, including social housing
Transport	Covers the provision of and management of mass transit systems by public authorities, as well as private transport
Public Lighting	Covers the provision of public lighting (e.g. street lighting and traffic lights) owned or operated by public authorities. Non-municipal public lighting is under private buildings.
Cross-Sectoral	Covers all those interventions falling under two or more thematic areas; climate change adaptation; local electricity production e.g. wind power, hydroelectric power, photovoltaic; and local heat/cold production e.g. combined heat and power and district heating plant.

Examples of Innovative Financing

Public Buildings	Private Buildings	Public Lighting	Transport	Cross-Sectoral
Revolving funds	Revolving funds	Revolving funds	Revolving funds	Revolving funds
Energy performance contracting (EPC)	EPC	EPC	Joint public procurement	EPC
Third party financing	Private ESCOs or Energy Retrofit Operators	Third party financing / investment	Third party financing (loans, leasing)	Joint public procurement
Cooperatives	Cooperatives	Cooperatives	Cooperatives	Cooperatives
Financial and fiscal (dis)incentives	Energy efficiency obligations (white certificates)	Energy efficiency obligations (white certificates)	Energy efficiency obligations (White certificates)	Energy efficiency obligations (white certificates)
Soft loans	Financial and fiscal (dis)incentives		Financial and fiscal (dis)incentives	Crowdfunding
Guarantee funds	Green bonds	Green bonds	Green bonds	Green bonds
Crowdfunding	On bill / on tax financing			
	Guarantee funds			
	Soft loans			
	Pay-as-you-save schemes			

Financial Schemes	Description
Energy Performance Contracting (EPC)	Energy Performance Contracting (EPC) is a method to implement energy efficiency projects, by which an ESCO (Energy Services Company) acts as a unique contractor and assures all of the steps of a project, from audit through installation up to operations and maintenance. The ESCO delivers a performance guarantee on the energy savings and takes responsibility for the end result. The EPC contract is the contractual agreement by which the output-drive results are agreed upon.
Third-party Financing	Refers solely to debt financing. The project financing comes from a third party, usually a financial institution or other investor, or the ESCO, which is not the user or customer.
Revolving Funds	A fund established to finance a continuing cycle of investments through initial amounts received from its shareholders, creditors or donors and later on through amounts received from reimbursements of provided funding or loans to projects. These recovered funds become available for further reinvestment in other projects under similar scope (e.g. revolving funds for sustainable energy will use the loans recovered funds to finance new sustainable energy projects).
Guarantee Funds	Loan guarantees, which provide a buffer by first losses of non-payment. A mechanisms whereby public funding facilitates/triggers investments.

Financial Schemes	Description
Soft Loans	Soft loan schemes, are loans below market rates and with longer payback periods. Soft loans may provide interest-free periods at the beginning of the loan. A mechanisms whereby public funding facilitates/triggers investments.
Green bonds	A functionally debt instrument, like any other bond. It offers fixed return, and a promise to use the proceeds to finance or re-finance, in part or fully, new or existing sustainable projects. The bond issuer has to ensure that the proceeds are invested in green projects, such as renewable energy, energy efficiency, projects leading to reduced carbon emissions, etc.
Cooperative	A cooperative ("coop") is an autonomous association of persons who voluntarily cooperate for their mutual, social, economic, and cultural benefit. Cooperative raises equity capital through a large number of investors, including citizens, and obtain debt capital from cooperative bank or subsidized loans.
Crowdfunding	A collective effort by people who network and pool their money together, usually via the internet, in order to invest in and support efforts initiated by other people or organizations

No.	Source of Funds	Description
1	Own Funds	Funds drawn from internal budget and resources
2	Local (City or Municipal) or Regional Budget	Funds drawn from the budget of local or regional public authorities
3	National Funds	Subsidies provided by national governmental bodies or funding through grants from national programmes
4	European Funds	
	Managed at the EU level	Funds that provide technical assistance and project development, usually for demonstration / pilot projects (e.g. European Innovation Partnership on Smart Cities and Communities, European Research Framework Programme, and Intelligent Energy Europe II Programme)
	Managed at the national, regional, or local levels	Funding resources and technical assistance, such as the European Structural and Investment Funds, which are managed by national, regional, or local public authorities in partnership with the European Commission through operational programmes based on strategic goals or investment priorities
5	European Banks	These include European Investment Bank (EIB), the Council of Europe Development Bank (CEB), European Fund for Strategic Investments, Private Finance for Energy Efficiency, European Energy Efficiency Fund, and European Bank for Reconstruction and Development
6	Private funds	Financing provided by private contractors, utilities, by institutional investors, crowdfunding, and through energy cooperatives

Outline of Presentation

Brief
Introduction to
PROSPECT

Why
*innovative
financing*

Learning from
best practices

Useful
resources

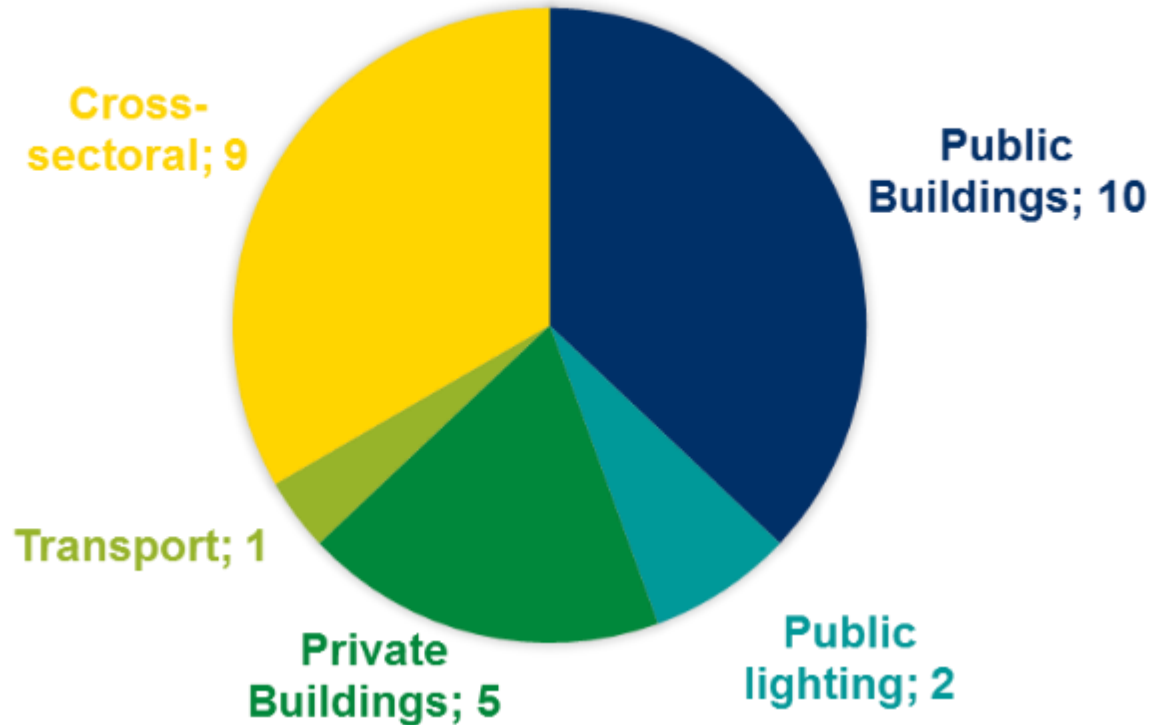
Q&A

Best Practices

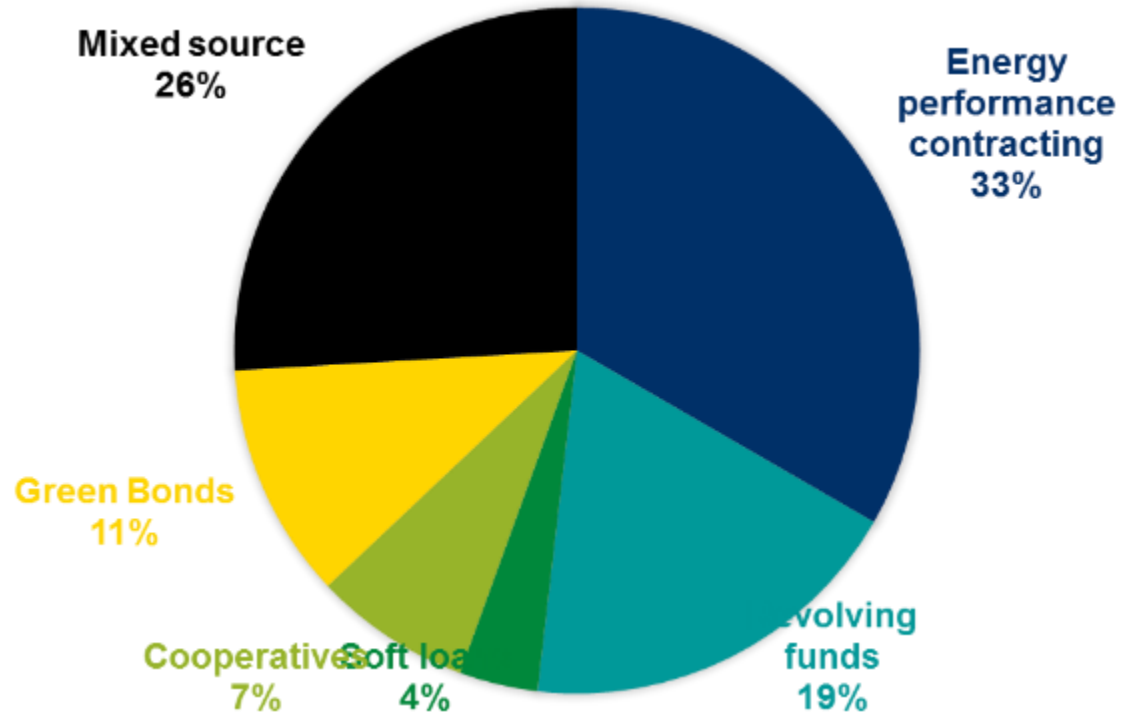
27 projects selected based on the following criteria:

- **Relevance:** Focus on at least one financing scheme and address one or more of the five sectors identified
- **Effectiveness:** Clearly demonstrate some impacts and achieved results in overcoming key barriers for the implementation of sustainable energy projects as well as outcomes in terms of energy savings, CO2 emissions reductions, and other energy-related benefits
- **Documentation:** Well documented, easily available and understandable for a broad audience
- **Transferability:** Provide evidence for scaling up transferred to other contexts

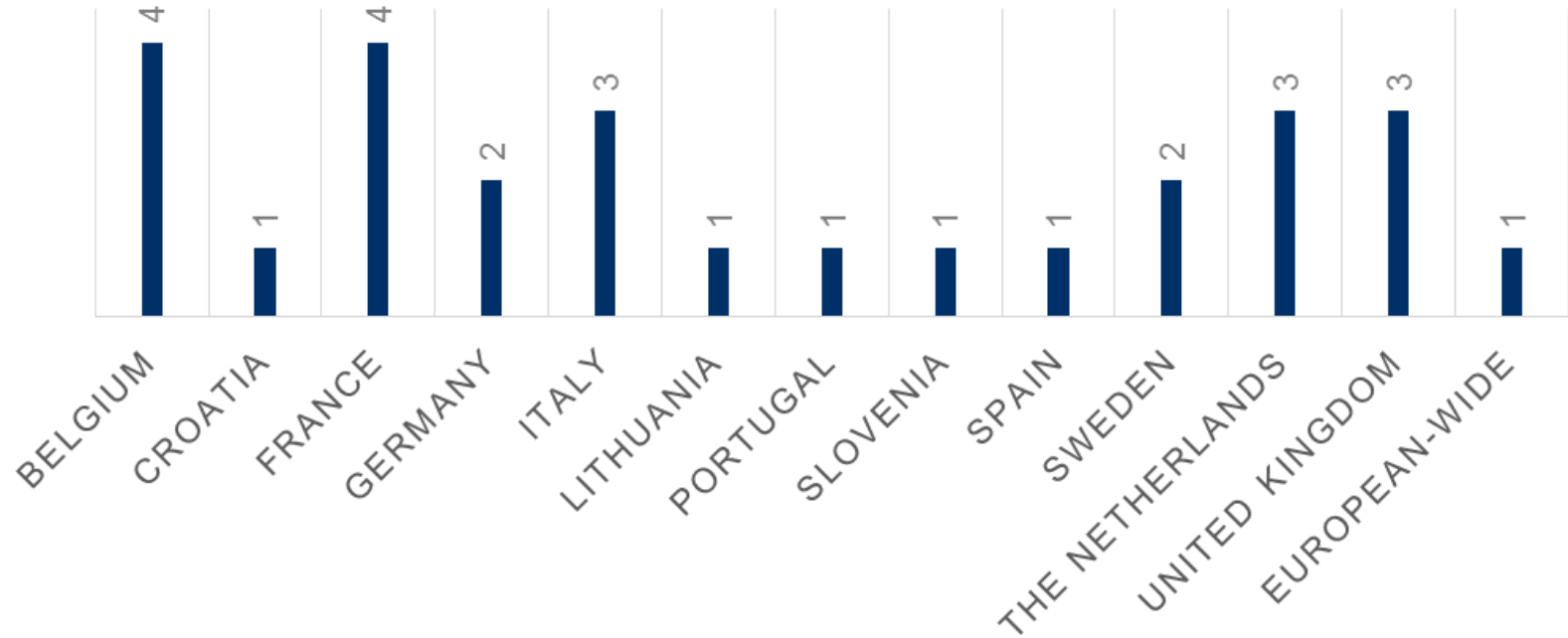
Distribution of Best Practices: Per Sector



Distribution of Best Practices: Per Scheme



Distribution of Best Practices: Per Country



Public and Private Buildings: Relevant Financing Schemes

Energy
Performance
Contracting

Revolving
Funds

Third Party
Financing

Soft Loans

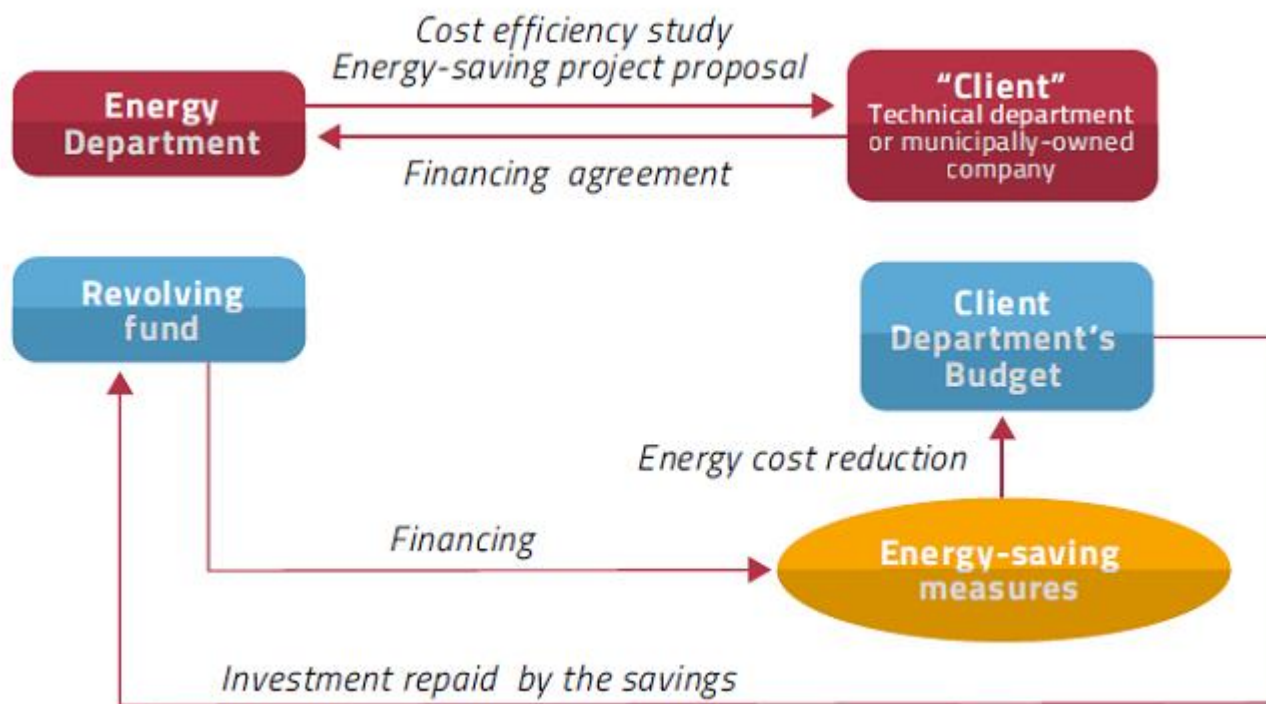
Guarantee
funds

Public Buildings: Revolving Funds

City/Country	Project Name	Source of Funds
Stuttgart, Belgium	Stuttgart's Internal Contracting Scheme	Own Local Budget
Agueda, Portugal	Agueda's Internal Contracting Scheme	Own Local Budget
Koprivnica, Slovakia	Koprivnica Fund	Own Local Budget
Leige, Belgium	Renowatt	Own Local Budget, Private Sector Institutions and Investors, and Financial Institutions Instruments

Stuttgart, Germany



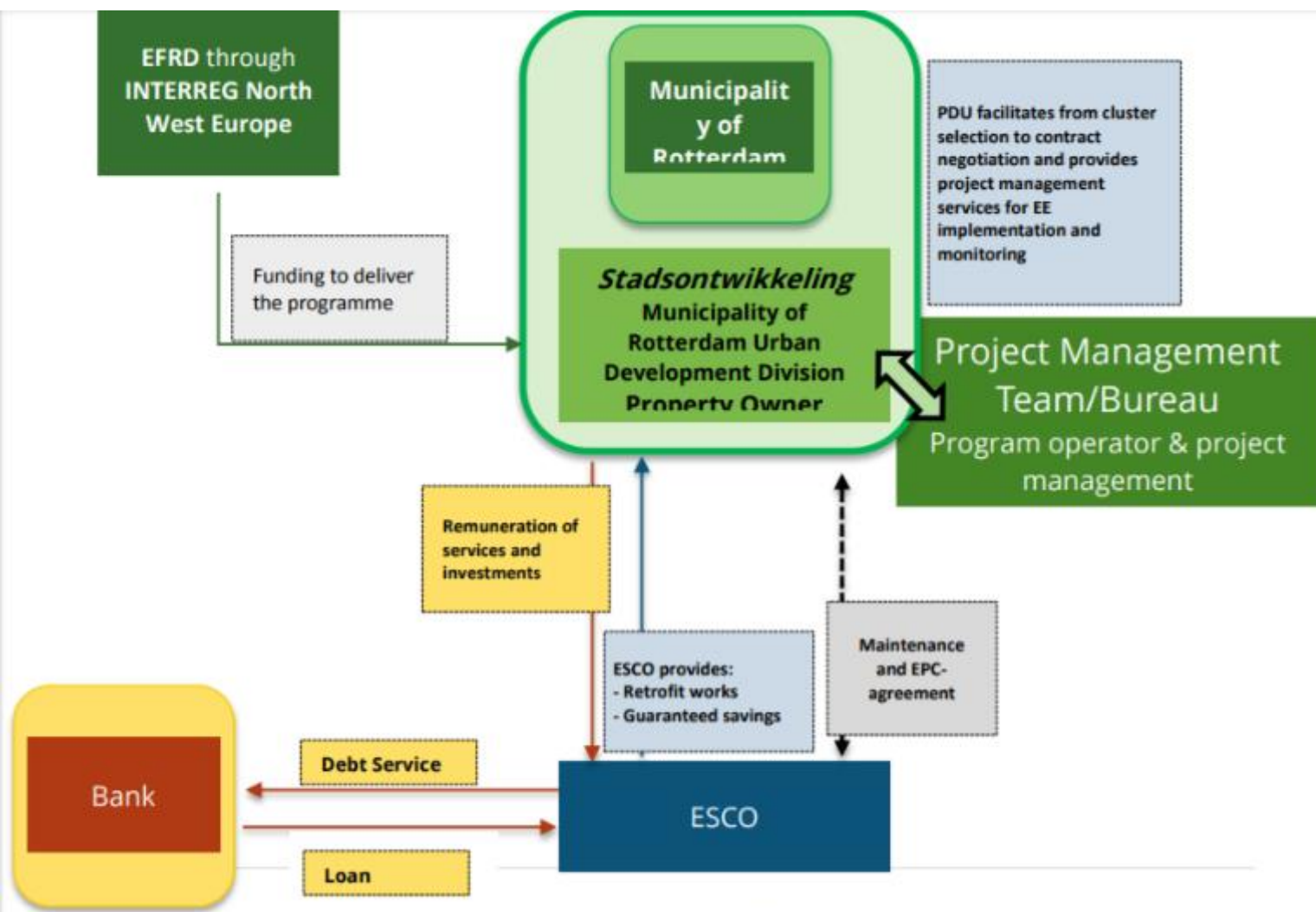


Public Buildings: Energy Performance Contracting

City/Country	Project Name	Source of Funds
Flemish Region, Belgium	Regional Energy Services Company Vlaams Energiebedrijf - VEB	Own Local Budget
Umea, Sweden	Creative financing for energy renovation	Private sector institutions and Own local budget
Rotterdam, the Netherlands	Rotterdam Green Buildings	European Funding Programme (INTERREG NEW), ESCOs and financial institutions i.e. banks, and own Local Budget (EUR 1 Million)
Paris, France	Refurbishment of municipal schools	Project development assistance, own local budget, and ESCO

Rotterdam, the Netherlands



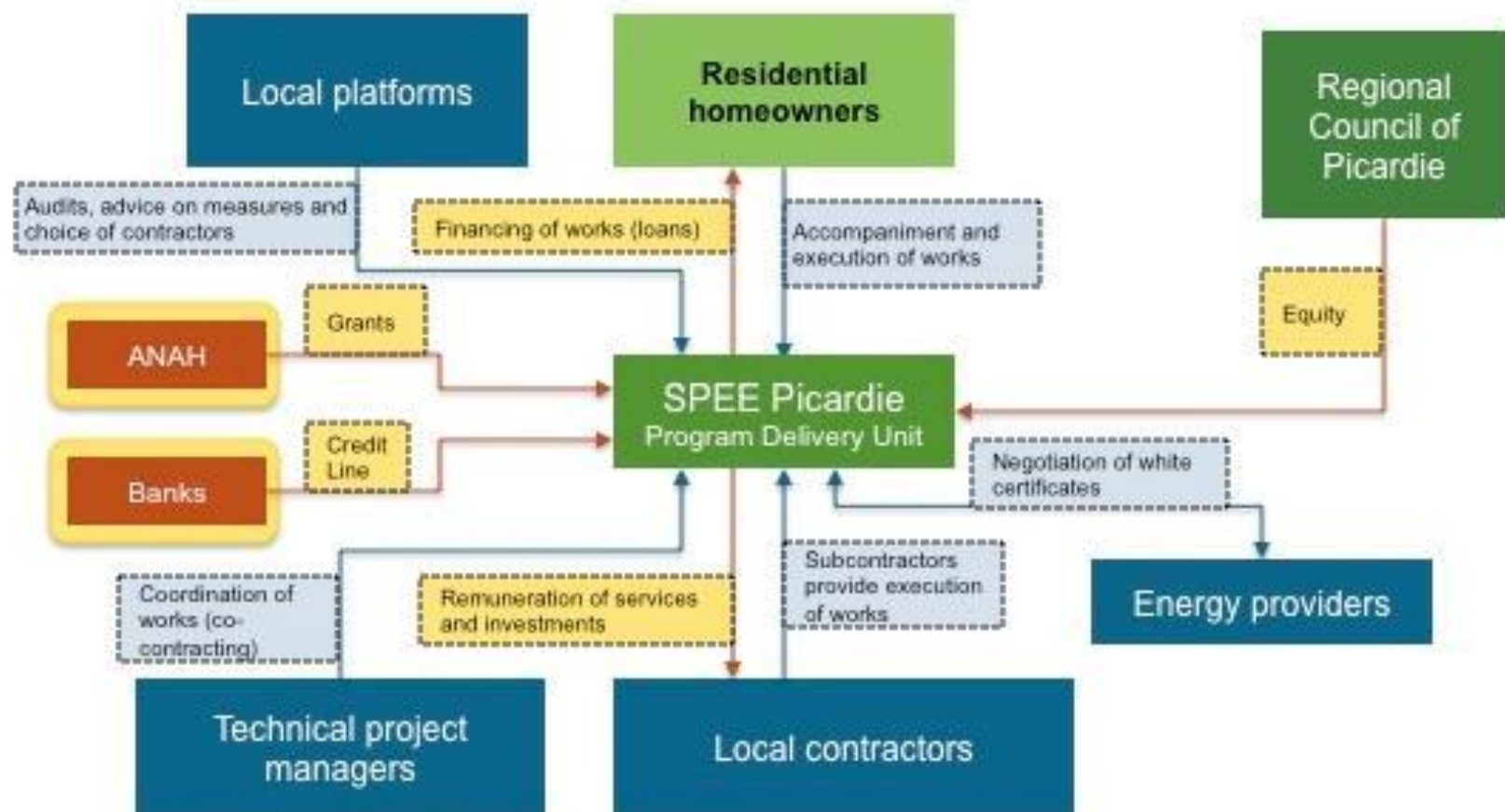


Private Buildings: Different Schemes

City/Country	Project Name	Source of Funds
Picardie, France	SPEE Picardie (Soft loans and third party financing)	Private sector institutions and own local budget
Parma, Italy	Parma Progetto (Soft loans)	Private sector institutions and investors
Brussels, Belgium	Brussels green loan (Soft loans and guarantee funds)	Own local budget and financial cooperative
Ile de France, France	Energies Posit'if (Third party financing and energy performance contracting)	Project development assistance, own local budget, and private sector institutions and investors

Picardie, France





Cross-Sectoral: Relevant Financing Schemes

Revolving
Fund

Energy
Performance
Contracting

Green Bonds

Third Party
Financing

Crowdfunding

Cross-Sectoral: Different Schemes

City/Country	Project Name	Source of Funds
Amsterdam, the Netherlands	Amsterdam Investment Fund (Revolving funds)	Own Local Budget
The Hague, the Netherlands	Energy Fund Den Haag (Revolving funds)	Project development assistance, European structural and investment funds, and private sector institutions and investors
Eeklo, Asse, and Beersel, Belgium	Ecopower Cvba (Cooperative)	Private Sector Institutions and Investors
Göteborg, Sweden	Greenbonds Framework (Greenbonds)	Private sector institutions and investors

Antwerp, Belgium



Ecopower: a citizen cooperative for renewable energy

Driven by values and by people

We are a co-operative company **owned by more than fifty thousand cooperatives**. Ordinary citizens who together own our renewable energy installations: wind turbines, solar panels, small hydropower plants and the pellet and wood briquette plant. People come every day.



Outline of Presentation

Brief
Introduction to
PROSPECT

Why
*innovative
financing*

Learning
from *best
practices*

Useful
resources

Q&A

Results for you to keep in mind

- 5 Handbooks



- list of mentors and their good practices

Outline of Presentation

Brief
Introduction

Why
*innovative
financing*

Learning
from *best
practices*

Useful
resources

Q&A

Learn more at: www.h2020prospect.eu

Thank you very much!

Vlasis Oikonomou vlasis@ieecp.org