



# Gaps and Best Practices for BPF

## **Name**

Peter Flipppo, Business Development Manager BPF

**September 25th, 2017 | Partner Meeting, Den Haag, NL**

## What did we gain so far from the project?

- Overview of competencies, capabilities and business models of SPF partners
- Insight in the challenge to establish a profitable business models for SPF's without funding
- Connection with SPF colleagues

## What else do we expect to get out of this project?

- SPF team vision on future of pilot plants and piloting market needs
- Improved funding mechanisms for BPF
- Options for cooperation

## Key Best Practices in my region are:

- Combination of one-off funding from local, provincial and national programs (often using EU money), for example to support start of BPF in 2012
- Region and Dutch Ministry of Economical affairs offer various funding options to support biobased economy developments, incl tax benefits for innovation R&D projects
- Involvement of large companies and universities as stakeholders
- Networks like Biobased Delta to get into contact with (future) customers

## Key Best Practices in other regions are:

- Vouchers systems to support projects for start-ups & SME's
- Regional investment support for Capex
- Company founded by ARD is doing research in Leuna
- Direct influence on government budget in UK
- Start your own company and sell it (ARD)
- Smart use of EU finance in Flanders
- Extensive potential customer network from subsidy platforms

## Most important gaps in my region are:

- No financially solid funding options/ voucher systems for BPF, both for direct and indirect support mechanisms: BPF is classified as large company because of share-holder structure (legal structure) and is funded low percentages.
- As a service provider it is difficult to initiate or partner in projects
- Funding for organisation, overhead and updating of facilities is not available. Governments expect facilities to run on a commercial scale.
- Facility is perceived 'expensive' by SME's.



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# Gaps and Best Practices for Flanders

## **Name**

Brecht Vanlerberghe, Head R&D, BBEPP

## What did we gain so far from the project?

- BBEPP: new EFRO project (infrastructure investment) approved
- Sharing experiences between authorities & actors on Flanders' direct and indirect policy mechanisms for bio-based pilot facilities
- Discussion with regional authorities regarding the 'nature' (recognition as research organisation) of BBEPP, to enable BBEPP to partner in regional projects within context of the spearhead clusters
- SmartPilots partners in Pilots4U (BBI JU CSA) project
- Constructive collaboration among consortium partners

## What else do we expect to get out of this project?

- 'nature' of our organisation clarified (BBEPP)
- Dedicated bioeconomy policy or sufficient focus to bioeconomy within circular economy « transition domain »
- Concrete recommendations for policy instruments to cover whole TRL spectrum, e.g.
  - Dedicated (structural) support mechanisms for demonstration projects/living labs within smart specialisation strategy
  - Regional research projects going up to TRL 5 should be favoured (cfr H2020)
  - SME vouchers for going from TRL 4 to 7 (eg. PRODEM programm VITO)
- More synergies/coördination between European and regional funding through Smartspecialisation or thematic investment platforms:
  - Cross-country support for use of pilot plants
  - Complementarity use of existing pilot plants
  - Interregional innovation cooperation as a way to improve internationalisation of regional clusters



## Key Best Practices in my region are:

- Pilot and demo infrastructure investments through ERDF, operational cost covered by public and private projects
- Spearhead clusters as a fly wheel of the smart specialisation strategy (public/private partnership between authorities and industry, industry driven), intercluster calls & calls for transition domain Circular Economy
- Flanders funding schemes are open to participation of foreign subcontractors
- Collaborative projects between industries and academia get higher score / funding rates, incentive to collaborate
- Prodem (vouchers for demo projects at VITO)

### *context*

- International collaborations on specific topics like BIORIZON (NL-FL), BIG-Cluster (NRW, NL, FL), Vanguard Initiative
- Strategic context set with IB roadmap CINBIOS, Bio-Economy strategy (Ceebio – searchtool, interdepartmental workgroup Bio Economy)
- V-Bioventures (VIB/EIB) and Flanders Biotech funds (PMV)

## Key Best Practices in other regions are:

- CIR in France
- Catapult program UK, covering the entire innovation trajectory: co-development of infrastructure and capabilities for higher TRL in parallel to development of the networks connecting industries and academia (results in encouragement of using the pilot facility with the innovators)
- Voucher systems for SMEs for TRL enhancement (e.g. INTERREG NWE: TRL 4-7)
- Strong Cluster Activity in other regions, Bio Economy Cluster (D), IAR (FR), Clib21(D)
- Innovation centers (UK) to support entrepreneurs in their innovation trajectory (« hiding the wires »)

## Most important gaps in my region are:

- ERDF projects: No funding available for keeping infrastructure operational and relevant.
- BBEPP infrastructure was financed through ERDF money, but cannot operate as partner in support mechanisms available for the spearhead clusters. *BBEPP and EWI together with Vlaio are investigating current bottlenecks with regards to use of ERDF financed innovation capable infrastructure in Flanders (BBEPP as exemplary case) within the context of the Spearheadclusters. VLAIO investigates how to support pilot and demo projects as well as required infrastructure (higher TRL projects – living labs).*
- Circular economy was selected as transition domain and bio economy embedded in circular economy, not dedicated
- Lack of level playing field for product applications in biomass, focus on energy
- Lack of complementary equity and debt financing in bio-innovation and pilot investments

## **‘More Europe’ ambitions of the SmartPilots project:**

- GAP in EU-policy instruments: ERDF & Interreg: infrastructure investments regional or in adjacent regions, no pan european instrument for Joint investment of regions in complementary infrastructures (cfr. Vanguard), can be distributed or one single location (ESFRI low TRL!)
- Regional support for international collaboration
- Continuation of the network
- Discussion with SME instrument for FP9



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# Gaps and Best Practices for VTT (Helsinki-Uusimaa Region)

**Mika Härkönen, Matthias Deschryvere, Pauliina Tukiainen (VTT)**  
**Kristiina Heiniemi-Pulkkinen (Helsinki-Uusimaa Region)**

**September 25th, 2017 | Partner Meeting, Den Haag, NL**

# What did we gain so far from the project?

- **Visibility & building value chains & Networking with European top players**
  - Critical mass: people & infrastructure, personal contacts
  - Piloting is competitive edge in European project preparations
  - European champions league pilots
- **Awareness about impact and requirements of Shared pilot facilities for the bio economy**
  - Benchmarking & Best practices
  - Business models
  - Operational models
  - Financing

## What else do we expect to get out of this project?

- Influence on regional action plan
- New clients through new co-operation models, enhance utilization rate
- Identify & develop new funding sources for infrastructure development
  - Capital investment support and operating cost endowment
  - Support to innovators for using SPF
  - Public Private Partnership
- How to influence national policy makers to promote nationally/regionally RI funding

# Key Best Practices in my region are:

- Combination of several funding sources ensures flexible operation
  - Academy of Finland
  - TEM infrastructure funding
  - Own investments
  - ERFD funding
  - Tekes and EU funding for VTT's client piloting activities
- Academy of Finland funds infrastructures included in **Finland's roadmap**. The funding is primarily allocated to **investment costs** at the construction phase and to significant upgrading of existing infrastructures.
  - VTT-Aalto infra co-operation (Bioeconomy infra is in the national roadmap)
  - Infrastructure co-operation with University network in Finland started

# Key Best Practices in other regions are:

- Seal of excellence under evaluation in multiple regions (FL & lombardia) SME-applicant to SME instrument with score above threshold but not granted could receive funding through ERDF for Phase 1 & phase 2 projects.
- Voucher schemes: limited but crucial funding available for SME at the right time, without heavy procedure (eg Flanders KMO portefeuille 10k€, interreg NWE Biobase NWE, H2020 Superbio, Interreg NWE Biobase4SME, ...) proof very effective. 10k€ too small for pilotscale activities, 30k€ to 100k€ seems appropriate level.
- UK Co-development of infrastructure & capabilities for higher TRL in parallel to development of the networks connecting Industries & academia.
- UK (Tees Valley, Tees Valley Business Compass) & Flanders (Innovation Centres): business support services (hiding the wires) helping SME's to identify and access the right funding mechanisms.
- Combination of ERDF & public money for creating investment funds. These can finance innovation activity and higher TRL projects.
- CIR agreement: French companies accessing services of recognised research organisations get a tax reduction on the invoices up to 30%, depending on the nature of the activities (CIR). System open to foreign research organisations to apply for the CIR agreement.



## Most important gaps in my region are:

- In Finland currently **no large investment instrument** exists and no big capital investments in buildings and equipment are directly financed by the Academy of Finland or by Tekes, it would be needed to fill the funding gap by combining national and European funding.
- **High dependency on special funding from TEM** – Ministry of Economic Affairs and Employment. Important to find new funding sources.
- **Access to ERDF in Helsinki-Uusimaa region is very limited**, as well towards direct and indirect support mechanisms, region will not access Seal of Excellence because of limited ERDF budget.
  - Not available for investments and industry.
- **The key player that finances piloting activities of companies is Tekes**, the Finnish funding agency for innovation.
  - There is a shift in support focus from large firms to SME's. Funding schemes and policies for pilot activities need to take this more into account.
  - Shift from grants to loans.
  - Tekes funding has dropped by 30 % in 2011-2016 due to budget cuts.
- **Finland is a small open economy** it is key to aim **to attract SME's from Europe** and beyond as to be able **to run in a sustainable way**.
  - SME instrument encourages SME's to invest in own assets rather than stimulating subcontracting or partnerships with existing infra.
  - New funding instruments for cross regional co-operation needed

# CONCLUSIONS: Towards regional action plans and implementation

- Commitment and **long-term assurance of the political landscape is essential**. Large-scale strategic investments in RDI infrastructures require one-of-a-kind approaches when organising their funding.
- However, with tight national budget constraints, big investments often not only need **the support from policy but also of politicians**.
- As currently **no large investment instrument exists** and no big capital investments in buildings and equipment are directly financed by the Academy of Finland or by Tekes, it would be needed to fill the funding gap by combining national and European funding.
- The efficiency and **coverage of national and European funding for setting up, operating and developing a SPF are partly lacking**. Gaps exist in terms of funding opportunities for the range of investment needs occurring and combining different funds synergistically.
- **Tekes budget has been cut heavily during** the last years, but the current **OECD evaluation** of the Finnish Innovation System advocates to stop the cuts and instead **invest more**.
- **Identify means to increase cross regional and international collaboration.**



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# Gaps and Best Practices for CPI (England)

**Name**

Derek Lincoln, Bid Manager

## **What did we gain so far from the project?**

- In depth understanding of Smartpilot partner business models; approach, development status, aspirations, opportunities, challenges.
- In depth understanding of Smartpilot partner funding environments; regional, federal, national.
- Direct discussions with UK regional & national authorities (and associated stakeholders) on relative position of UK/EU IB.
- Constructive & tangible collaboration among consortium partners.

## **What else do we expect to get out of this project?**

- Sustained collaborative/good relationships with consortium partners.
- TVCA more open to understanding IB/CPI-IBB with Smartpilots benchmark.
- Unclear future of direct/indirect funding from EU sources (Brexit).

## **Key Best Practices in my region are:**

- National direct support to build IB asset & research infrastructure.
- Enhancement of assets by regional support, ERDF (£900k), proposed £4m Technology Platform project from mayoral assistance.
- Direct funding of core budgets through the UK's Catapult Network.
- IUK indirect funding mechanisms to support UK IB community.

## **Key Best Practices in other regions are:**

- Understanding regional drivers (VTT, ARD, Fraunhofer CBP, etc..)
- Spin out activity (ARD)
- Flexible approach and use of European Funds (BBEPP)
- Cross Border Co-operation (Flanders, South Holland)

## Most important gaps in my region are:

- Replace & renew strategy for assets and/or maintenance of SOTA technologies.
- Accessible and compelling articulation of IB space at national & regional levels leading to tangible outputs - Bioeconomy Strategy
- Lack of national, regional, CPlengagement in EU – austerity + Brexit.

## **‘More Europe’ ambitions of the SmartPilots project:**

- Post Brexit landscape for:
  - collaborations with EU organisations
  - joint funding arrangements with EU
  - joint research infrastructures and actions
  - smart specialisation





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# Gaps and Best Practices for Fraunhofer CBP

**Gerd Unkelbach**

Head of Fraunhofer CBP

## What did we gain so far from the project?

- Deeper insights about the aims, structure, core competences and business / operational models of the different SPFs
- Expansion of own network with key contacts to responsible persons at the SPFs and their regions
- Good summary and overview of the funding structures in each region, which can be used to further improve the conditions at regional and national level (due to a lack of participation of representatives from German ministries)

## What else do we expect to get out of this project?

- Increasing awareness at regional, national and European level about the existence and possibilities at the SPFs and their network
- Adopting funding mechanisms that facilitate the use of SPFs
  - Taking over best practise examples from other regions / countries
  - Enabling of streamlined cross-boarder cooperative of SPFs, helping a single user with the best competences
- Adopting regional and national funding mechanisms that allows Fraunhofer CBP to apply also for co-financing of European projects (coverage of funding gap as partner)

## Key Best Practices in my region are:

- Clear political commitment to the bioeconomy of the federal government and the state Saxony-Anhalt
- Several funding programs in the field of bioeconomy for R&D&I
- Combination of regional and national funding for partly financing of large infrastructure possible (best example Fraunhofer CBP)
- Good integration of the SPF within the leading-edge cluster activity and within the academic / institutional organisations in the surrounding
- Backbone of the Fraunhofer-society enables CBP to focus more on core business (sharing of costs for administrative issues and ~10% ground financing)

## Key Best Practices in other regions are:

- Eligibility of R&D activities partly on tax
- Short-term targeted support, especially of SMEs, through research / innovation vouchers
- Established networks and innovation centers supporting the SPF

## Most important gaps in my region are:

- Inadequate coordination of the funding programs between the federal states and the federal ministries leads to overlapping and uncertainty among the applicants
- The need for co-financing the use of the SPF (Fraunhofer CBP) in most of the funding programs leads to a higher burden on industrial partners
- No dedicated program for covering maintenance costs (ground financing should and have to be used for R&D-activities)
- No funding for companies possible, which are not resident in the federal state where SPF is located / unattractive framework conditions to settle
- No allowance of cross-border-funding in regional or national programs prevents cooperation between SPFs
- High competition in regional / national funding programs and for ERDF-infrastructure funds
- No specific incentives for SMEs to develop bio based process and scaling up within SPFs



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# Gaps and Best Practices for **ARD** based in France

**Name**

J-C Duval, Bus Dev, ARD

**September 25th, 2017 | Partner Meeting, Den Haag, NL**

## **What did we gain so far from the project?**

- Get to know each other!
- Better Visibility on Pilots' activities
- Discover Various & different business models and financing sources
- Opportunity to explore potential cooperation in the future

## **What else do we expect to get out of this project?**

- Global communication & promotion
- More impact on EU ' Policy and funding for the Bioeconomy, especially for startup & SME access to scale-up and to markets
- Concentration / Focus of EU funding mechanisms for Startups and SME's



## Key Best Practices in my region are:

- Capacity to access important Govt funding to support strategic activities and infrastructure in the long run (ie Bioeconomy), KPI's are more demanding
- Innovation & Entrepreneurship clusters / incubators.. And public / VC's funding
- Startup funding at early stage
- Lack of funding before startup creation to finance the POK which is usually a condition precedent for investors

## Key Best Practices in other regions are:

- Vouchers offered to SME's
- EU and/or Regional fundings to Finance infrastructures of certain Pilots (UK-Belgium- Finland..?)

## Most important gaps in my region are:

- Coordination of SME's funding among EU, Gov, Regional, local...
  - Lack of focus of supports
  - Difficulties for startup/SME's as well to identify the best support
  - ARD is not offering vouchers
- SME part of a Corporation
  - less funding opportunities than others
  - Internal Capex



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# Your questions

Questions welcome





# Gaps and Best Practices for **Lombardy region**

**Ilaria Bonetti**

EU Project Manager – Innovhub SSI

## What did we gain so far from the project?

- Investments in European Shared Pilot Facilities for the bio economy are included in the regional and national financing policies of many of the partners involved with various levels of in-depth. This demonstrates the interest in the benefits that these plants can bring to the development of the bio-economy and SMEs involved in this sector
- A public engagement is fundamental for a SPF start up phase: the commitment of the local/regional authority is strategic to the future commitment of private actors (Public/private partnership)

## What else do we expect to get out of this project?

- Increasing awareness at the regional and local level to give input to the creation of public facilities with the SPF's goals, especially in those areas with a strong bio economic vocation that coincide with national excellence (e.g. agro food)
- Interest in particular funding mechanisms (e.g. voucher) for SMEs that facilitate the use of facilities such as SPFs that can be the engine for innovation
- Successful experiences that we can implement at local level to stimulate R&D bio economy projects developed by SMEs and start ups

## Key Best Practices in my region are:

- Through government-sponsored funding schemes (e.g. **Industry 4.0**), advanced manufacturing in bio economy can apply flexible depreciation rules (hyper or super) for investments
- **Seal of excellence** in the event of non-granting of funding: SME-applicant to SME instrument with score above threshold but not granted could receive funding through ERDF for Phase 1 projects.
- **Tax credit for R & D investment** covering some eligible expenses including those incurred for technical expertise and industrial and biotechnological patents who have provided good economic returns in the bio economy sector
- **Support to local initiatives** on bio economy: incentives focused on biogas; support to Green Chemistry Cluster (policy instrument)
- **Support measures** (at national level) to promote plants realisation (Minister for Economic Development has allocated 29 M€ for green chemistry – 20% for northern regions)

## Key Best Practices in other regions are:

- **National and regional ground financing**: this ground financing is tailored or granted because these organizations are on a 'positive list' resulting from national or regional strategies / priorities / smart specializations (Finland, UK, Germany)
- SME companies accessing services of recognized research organizations get a **tax reduction** on the invoices up to 30%, depending on the nature of the activities (France)
- **Voucher schemes**: limited but crucial funding available for SME at the right time, without heavy procedure (Flanders)

## Most important gaps in my region are:

- **Lack of public SPF:** we currently have only some private facilities
- **No specific programmes** for supporting the bio economy with direct regional or national funds
- **No specific incentives** for SMEs to develop bio based process and scaling up within SPFs
- **National Bio economy Strategy not yet fully implemented regionally:** officially launched in April 2017, need to be converted into an action plan (which will foresee a concrete support for industrial technologies scaling up)
- **Lack of a fixed and coherent regulatory system**, which harmonise regional and national strategies
- **No support measures for companies** that want to «use» SPF abroad : ERDF funds have to be spent on the regional area
- **Scarce integration among regional depts.** that should collaborate toward a common goal (i.e. dept. responsible for R&D programs is far from infrastructures dept. and there are no synergies in the budget allocation)



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