



First Research Workshop, midterm policy conference, voxEU column

Deliverable: D8.6: First Research Workshop, midterm policy conference, VoXEU column

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Coordinator: Dr. Georg Licht, ZEW

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Project Information Summary

Table 1: Project Information Summary

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Co-ordinator	Dr. Georg Licht, Zentrum für Europäische Wirtschaftsforschung GmbH
Consortium Partners	Centre for Economic Policy Research Lunds Universitet Università Luigi Bocconi Universitat Pompeu Fabra London Business School
Website	http://www.h2020frame.eu/frame/home.html

Deliverable Documentation Sheet

Table 2: Deliverable Documentation Sheet

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Contributor(s)	
Reviewer(s)	All partners
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Quality Control Assessment Sheet

Table 3: Quality Control Assessment Sheet

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V0.1	26.06.2017	First draft	Florence Blandinieres
V0.2	09.08.2017	Second draft	Florence Blandinieres
V1.0	05.09.2017	Final draft	Florence Blandinieres
V2.0	28.07.2018	Public version	Florence Blandinieres

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Executive Summary

The purpose of D8.6 is to provide an overview of the main elements constituting the strategy to diffuse the results and methodologies generated within FRAME over the 1st half period. The different sections summarize the elements characterizing each event (i.e. organizers, date, locations, contributions, attendees, and related communication efforts). The last section summarizes the topic, source of authorship regarding the VoxColumn, and related communication efforts.

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1 Introduction

The first results of the project were successively presented during an internal research workshop and the FRAME Midterm Conference. The VoxEU column describes the key results made in Work Package 6, which is the most advanced package up to now. In the next sections, a short summary of the different events are developed. Finally, section 3.4 summarizes the main topics discussed within the FRAME Mid-Term Policy Conference. The links toward the related video and the VoxEU column are provided in section 3.5.

2 1st Research Workshop in London

2.1 Summary of the event

The 1st Research Workshop was organized by CEPR and took place in London on the 10th of November 2017. A summary of each session (e.g. topics, presenter, Work Package) is provided in Appendix. Overall, the event represented a key moment in the history of the project. The different project members could meet face to face, and engaged in rich discussions about the next steps of the project but also potential new avenues. While some presentations were dedicated to summarizing the key milestones of Work Packages 1 and 6, other presentations introduced new ideas to push the scientific frontier in Work Package 2 and 5. At this point, the question of technical feasibility and appropriate data represented critical impediments to developing such research ideas. FRAME will thereby develop new models and extensions which can be considered as edge-cutting research. Additional topics were discussed about the next events and steps of the project.

As illustrated in Figure 1 listing the attendees, only people involved within the project were present. Several attempts by CEPR were made to contact people in order to invite a few external researchers. The very-early stage of the project at this time limited the quantity of robust and tangible results. Only WP1 and 6 were mature enough to be presented in front of external people. For this reason, CEPR contacted a set of relevant people to provide feedback for WP1 and 6: Christopher Pissarides (LSE), Wouter Den Haan (LSE), Dietmar Harhoff (LMU-MPI of Economics, Munich), Morten Ravn (University College London), Uwe Cantner (FSU Jena), and Ingrid Rott (Karlsruhe Institute of Technology). Unfortunately, any of them could attend the workshop but signaled their interest for the project. The same hold for the involvement of the SAB members: the inception character of the project limited their involvement until the Midterm conference.

2.2 Communication efforts linked to the 1st Research Workshop

The event was advertised on Twitter ¹ and within the first and second newsletters. An overview of the event is also publicly available on the website <http://www.h2020frame.eu/frame/events/workshops.html>.

¹see https://twitter.com/cepr_org/status/930032616434229248

2.3 Issues and limitations

As discussed within the interim review meeting, one can consider that the nature of the event changed since only people working on the project attended. Consequently, the workshop can be seen as an internal meeting. To cope with this issue, different options are currently discussed within the consortium. To compensate for the lack of diffusion towards our target audiences (i.e. academia, Central Banks, governmental agencies mainly), we consider the following alternatives: enlarging the Research Training to more people, opening the MONROE-FRAME workshop to external people, or enlarging the Final Policy Conference by substituting the internal meeting initially planned for additional sessions. A solution will be found over the second half of the project to be sure of diffusing the results towards a maximum of external people. Moreover, the SAB members will be invited to attend the events taking place in October to benefit from their feedback at a more mature stage of the project. Wener Roeger will make a keynote speech within the Research Training and will attend the lunch debate in Brussels. Gianluca Benigno will chair a session within the Research Workshop in Lund. Peter McAdam and Stefan Profit have been approached to attend the Lunch Debate and the Research Training but their presence must be confirmed.

3 FRAME Midterm Policy Conference

On 19-20 March the FRAME Mid-Term Policy Conference was held in Mannheim. The conference was organized and hosted by ZEW. Considering the early stage of the results, participation was on invitation only. The selection of presenters was based on their link with the FRAME topics: on the one hand, their expertise in the field of microeconometrics to assess the impact of public support to enhance innovation, and on the other hand, their know-how regarding macro-modelling and technological change. For more details, please see the program which is available on the conference website². The presenters who allowed us to put online their slides on the FRAME website is available at the following link: <http://www.h2020frame.eu/frame/events/conferences.html>.

The FRAME Midterm Conference was designed to foster the dialogue between different European projects which like FRAME, aim at the development of macro-frameworks to assess the link between research efforts, innovation, and growth. Several project leaders from different H2020 projects accepted to join the conference (Giovanni Dosi from ISIGrowth, Bart Verspagen from I3U, and Olga Ivanova from MONROE). Their respective contributions reflected different schools of thoughts and paved the way to intense controversies between the proponents of dynamic stochastic general equilibriums approaches and agent-based modelers. The full list of participants is available in Appendix (section C) in which their role within the conference is detailed. All engaged in a rich discussion across presentations. Contrary to most conferences, the FRAME midterm Policy Conference provided an overview of the variety of approaches existing to model technological change, stressing the co-existence of different schools of thought. FRAME project members presented the most advanced results from Work Packages 1 and 6. Several SAB members attended the event and provided comments along the events. The Midterm conference also gave the opportunity to discuss with the MONROE project members in order to set up an agenda to compare the respective approaches developed within MONROE and FRAME via two workshops.

²http://www.zew.de/en/veranstaltungen-und-weiterbildung/detail/frame-mid-term-policy-conference/2463/?no_cache=1

3.1 Main topics presented

Microeconomic evidence on the impact of public R&D on innovation, growth and employment was the topic of a first session. Jacques Mairesse (UNU-Merit) show the positive impact of the French R&D tax credit scheme on innovation and productivity development of French firms. Maikel Pellens (ZEW) focuses in the role of public-private joint research on innovation and employment in German companies. His econometric analysis is based on research contract between Fraunhofer research institutes and firm in Germany with special reference to applied research and diffusion-oriented R&D projects. Finally, Torben Schubert (Lund University and FhG-ISI) highlighted on international R&D spillovers and suggested an empirical estimation procedure for parameters of the DSGE model to be developed as part of the frame.

Tom Holden (University of Surrey) and Mario Giarda (UPF Barcelona) introduced two macro-models from the DSGE family which look at the impact of public R&D on long-run growth. Giovanni Dosi and Andrea Roventini (Sant'Anna School, Pisa) highlighted the advantages of agent-based modelling approaches and presented results on the impact of public R&D policies on innovation and growth. Finally, André Lorentz (University of Strasbourg) looked at the interaction of structural change, innovation, and the skill structure.

3.2 Keynote Lecture

Bart Verspagen (UNU-Merit & University of Maastricht) presented results from an empirical study at the macro-level of mission-oriented public R&D spending on total factor productivity. He discussed difficulties to capture mission-oriented public R&D in an empirical setting at the macro-level. Surprisingly, his early results show that non-mission oriented projects have a higher impact that the mission-oriented ones on productivity gains. He insisted that his approach is still in an early stage and much more work is needed to check for the robustness of the results so that one should be quite carefully when drawing policy conclusions. These key challenges in assessing the impact of public research is also connected to the E3U project which aims at developing new indicators for innovation activities and led by Bart Verspagen.

3.3 Panel discussion on designing new research innovation policies in Europe

Research, technology and innovation policy is increasingly viewed as a tool for solving key societal challenges, such as global warming, coping with ageing population, or economic recovery. In a panel discussion moderated by Georg Licht (ZEW), representatives from academia, central banks, and politics discussed the current challenges of the ongoing research and innovation policies across EU countries.

Peter McAdam, senior economist at the Research Department of the European Central Bank, highlighted the complexity linked to the design of new efficient research and innovation policies. The current productivity slowdown in Europe depicts a complex picture in which several determinants are involved (concentration of innovation activities among some players, zombie firms etc...). Therefore, one needs to address several issues in the same time with a limited understanding of the interactions between policy measures on all determinants. Diego Comin (CEPR and Dartmouth College) extended the previous assessment and highlighted also the decreasing rate of technological adoption in explaining the productivity slowdown. To address

this issue, Diego Comin focused this talk on his initiative in Malaysia aiming at matching firms' needs with experts from universities. The importance of supporting public research to foster innovation was also underlined by Alfred Gossner, Executive Vice President for Finance, Control and Information Systems at the Fraunhofer Society. Alfred Gossner explained the role played by the Fraunhofer Institutes in supporting firms to cope with technological transitions, such as in the case of sustainable energy. He emphasized the need to address societal challenges in public research. The Fraunhofer Society is currently considering setting-up a mission-oriented agenda despite several difficulties to assess to which extent the achievement of the goals in the short-run. Andrea Roventini of Sant'Anna School of Advanced Studies in Pisa put at the forefront of his talk the role of the State in recovering from the crisis. Andrea Roventini supported also the idea of designing mission-oriented grants which would directly address societal challenges at the European level. Doing so at the European level would maximize the capacity of European countries to benefit from research conducted in different countries. Andrea Roventini suggested to create a new tax on multinationals which would be used to re-invest in public research, depicting a virtuous circle between innovation and research. As a representative from the European Commission, Werner Roeger stressed the current budget constraints on the design of new research and innovation policies in Europe. Brexit will imply a reduction 10 billion euros in the European budget. Despite the willingness to establish a mission-oriented program to support research and development, this budget cut might limit the capacity to support research and innovation in Europe.

3.4 Attendees distribution

The topic associated to the conference attracted a wide range of stakeholders (i.e. researchers in academia, central banks, governmental agencies, ministries, foundations). Scholars and policy makers from all around Europe, the USA, and the UK took part. As illustrated in the table below, mainly European participants attended the event. While the amount of Southern and Northern EU countries are pretty even, one third of participants was coming from Germany. The latter reflects on the one hand, the ZEW location, and on the other hand, the ZEW network. We can expect that this trend will change with the upcoming events in Lund and London, enlarging the scope of the geographical diffusion of the results.

Table 4: Distribution of countries

Countries	Attendees
Germany	12
Northern EU	8
Southern EU	9
UK	3
US	1

The conference aimed at gathering feedback from a wide range of stakeholders who will use the new generation of models developed in the FRAME projects to conduct new research on Research and Innovation policies. Considering the nature of the event, the majority of participants was coming from academia even if all FRAME targeted audiences were represented among the attendees. The next upcoming events (i.e. research training, lunch debate, and final policy conference) will focus on targeting a broader set of audience (i.e. Central Banks, researchers in governmental agencies, and policy-makers). The full list of attendees with their

affiliation, institutional types and country are available in Appendix.

Table 5: Distribution of institutional affiliation

Institutions	Attendees
Academia	23
Government	4
Central Bank	1
EU DG/JRC	2
Foundation/Practitioners	3

3.5 Communication efforts linked to the Midterm conference

The announcement of the conference was made on Twitter by CEPR³ and was advertised on the ZEW and FRAME websites⁴. The event was also advertised in a ZEW newsletter⁵. During the conference, several twitts have been made by CEPR and ZEW respectively⁶.

On the 26th of March 2018, a video of the conference has been released and made available on the ZEW Youtube account <https://www.youtube.com/watch?v=jSqXJSzvnE&feature=youtu.be>, and is cross-linked on the FRAME website. The idea behind the video was to provide an overview of the key topics discussed during the conference but also the purpose of the latter to general audience. First, the role of such event within the life-cycle of the project was explained (e.g. early stage work that can benefit from feedback from peers, face to face explanations to deepen the understanding of the ongoing contributions). Second, the need to combine different macro-perspectives to design policy measures. The video has been advertised on Twitter by CEPR and ZEW <https://twitter.com/voxeu/status/983322498942078976> and within the 3rd FRAME newsletter.

Moreover, a summary of the conference is available on the FRAME and ZEW website⁷. The latter was also sent via the ZEW newsletter and constitutes the first FRAME press release⁸.

³https://twitter.com/cepr_org/status/963800949805518849

⁴https://www.zew.de/en/veranstaltungen-und-weiterbildung/detail/frame-mid-term-policy-conference/2463/?no_cache=1

⁵http://rdir.zew.de/inxmail/mailarchiv_en.jsp?mail=4037&c=display

⁶ see for example https://twitter.com/cepr_org/status/976041590392328198 and <https://twitter.com/ZEW/status/987241989744754688>

⁷<https://www.zew.de/en/das-zew/aktuelles/frame-konferenz-zum-beitrag-von-oeffentlicher-forschung-auf-innovationen-am-zew/>

⁸http://rdir.zew.de/inxmail/mailarchiv_en.jsp?mail=4174&c=display

4 VoXColumn: Publicly funded applied research pays off: The effects of the Fraunhofer-Gesellschaft on firm performance

A VoXColumn has been released on the 8th of March 2018 based on the key findings coming from Working Package 6. The VoxColumn is available at the following link <https://voxeu.org/article/publicly-funded-applied-research-pays-case-fraunhofer-gesellschaft>. Maikel Pellens and Torben Schubert were the main authors of the VoxColumn while Diego Comin and Georg Licht provided feedback on the latter. In parallel, a working paper has been launched and is publicly available on the Lund Working Paper Depository ⁹. In July 2018, the VoXColumn has already attracted 6,365 views. To maximize the number of views, the publication of the VoXColumn has been advertised on Twitter on the 7th of March¹⁰, and re-tweeted 13 times. The publication of the VoXColumn has also been highlighted within the 3rd newsletter and a link to it will be added on the FRAME website.

⁹https://swopec.hhs.se/lucirc/abs/lucirc2018_007.htm

¹⁰<https://twitter.com/voxeu/status/971566805708763136>

Figure 1: Agenda of the 1st Research workshop



A Overview 1st Research Workshop

First FRAME Research Workshop

One Moorgate Place, London

Friday, 10th November 2017

Programme

10:30-10:40	Welcome note and outline of the project including its Work Packages (WPs)
10:40-11:15	<i>Development of FRAME's Baseline Model – applications to assess the macroeconomic impact of innovation policies</i> Mario Giarda (UPF) Presentation of WP1 (with plenary discussion)
11:15-11:45	<i>On the Measurement of Capacity Adjusted TFP</i> Tom Schmitz (Boconi) Presentation WP 1 and 5 (with plenary discussion)
11:45-12:15	<i>A model of the EU</i> Thilo Kind (LBS) Presentation WP4 (with plenary discussion)
12:15-13:15	Lunch
13:15-13:45	<i>Two Models on the Direction of Technical Change</i> Diego Comin (CEPR) Presentation of WP2 and 3 (with plenary discussion)
13:45-14:15	<i>The Drivers of Unemployment During the Great Recession</i> Antonella Trigari (Boconi) Presentation WP 5 (with plenary discussion)
14:15-14:45	<i>Estimation of key FRAME model parameters – the effects of public R&D institutions on private firm performance</i> Maikel Pellens (ZEW) and Torben Schubert (ULund) Presentation WP6 (with plenary discussion)
15:00-15:15	Coffee Break
15:15-15:30	Summary by Project Co-ordinator and Comments from Scientific Advisory Board members
15:30-17:00	FRAME internal meeting
16:00	End of Workshop



B 1st Research Workshop summary 1/2

The meeting started with a short introduction regarding the organization of the day, mainly dedicated to the new scientific advances made in WP1, 2, 3, and 6.

10:40-11:15

The first presentation summarized the main results associated to the D1.1 report submitted end September. The presentation was done by Mario Giarda. The results show that technological adoption leads to negative impact of TFP in the short run. Therefore, public interventions are needed (e.g. subsidies, tax incentives) to mitigate the detrimental short term effect. Technological adoption appears countercyclical and extensions of the baseline model are planned to relax the assumptions about wage rigidities.

11:15-11:45

The second presentation was made by Tom Schmitz who introduces the main results of the current research efforts linked to WP2. The study aims at providing an alternative to the Fernald's approach in which the TFP measurement is based on the Solow residuals. The latter can be biased for different results and hardly match the case of European countries. The study proposes to build a production function which takes into account the capital adjusted for its utilization. Doing so is better suited to measure the TFP among European countries.

11:45-12:15

Finally, Thilo Kind presented the first estimations of the WP4, aiming at extending the baseline model with multiple countries. For the moment, the extension is done for a pair of countries and distinguishes between intermediate vs final goods. The latter are used to trade between countries. The model relies on governmental bonds to understand how risk propagates across European countries. Extensions of the current estimations are planned.

13:15-13:45

Diego Comin presented the new extensions planned for the baseline model. The latter aim at responding to the European Commission needs about differentiating between the impact(s) of distinct innovations. WP 2 and 3 will be mainly concerned by these extensions which aim at deepen the understanding the current structural change occurring within the source of innovation. The shift of the sectorial source of innovation from manufacturing to services will be addressed through the importance of semi-skilled workers. Diego Comin presented the initial results regarding the core mechanisms studied in WP3, namely education, offshoring, and innovation. In this study, the role of semi-skilled workers is underlined as a key driver of structural change, affecting the direction of innovation across sectors.

13:45-14:15

The next presentation was given by Antonella Trigari who leads the WP5. In this package extensions of the baseline model are planned to understand the links and implications between labor markets dynamics and technological diffusion. While the literature mainly focused on productivity shocks to explain the drivers of unemployment, the study proposes to consider the discounted earning flows from new hires as a key driver of unemployment. The latter explains the fluctuations of unemployment and its countercyclical nature to business cycles. Extensions are planned in order to find an alternative to governmental spreads to measure the corporate risks over the business cycles.

1st Research Workshop summary 2/2

14:15-14:45

Finally, Maikel Pellens presented the main results related to the report D6.1 submitted in September. The analysis relies on a unique database which summarizes all confidential agreements between the Fraunhofer society and German firms. The latter is used to assess the importance of public R&D on private innovation. Overall, the study shows that interacting with public research organizations have a positive and significant effects on firms' growth and performance. This report represented the first step to assess the elasticities of public R&D involved in the production and diffusion of private innovation. In this regard, the study relies and extends the estimation strategy developed by Botazzi and Peri (2007) by differentiating between public vs private R&D. Contrary to other attempts, the study relies on fractional counts at the sectorial and country levels to avoid multiple counts. Different bottlenecks linked to the measurement of public R&D efforts were discussed and extensions are planned for the D6.2.

15:30-17:00 Internal meeting

- Georg Licht, acting as Project Coordinator, insisted on the importance of being involved in the diffusion, dissemination, and communication aspects of the project. Scientific publications representing only one channel of the diffusion mechanisms.
- Presentation of the mid-term conference draft. The latter will take place in Mannheim (ZEW) on the 19th-20th March 2018. The conference aims at bridging together different current H2020 projects stakeholders to discuss key results of the FRAME project and ongoing questions. In this respect, ISIGrowth, MONROE, and I3U are identified as key projects to interact with.
- The Scientific Advisory Board is complete. The latter is composed of 6 members: Peter McAdam, Huw Pill, Gianluca Benigno, Alfred Gossner, Stefan Profit, and Werner Röger. The SAB is composed of academic scientists and policy advisor and policy-makers. For this reason, the project members agreed on relying on the SAB to get scientific feedbacks but also to ease the diffusion of the key results to the political realm.
- The VoxEU column related to WP6 and the key results involved in D6.1. Maikel Pellens will be in charge of writing the VoxEU column
- An animated video planned to participate at the H2020 competition related to the promotion of scientific projects toward general audience. The latter will be developed and funded by ZEW.

C List of the FRAME Midterm Conference participants 1/2



FRAME Mid-Term Policy Conference-

Impact of public Research and Innovation efforts on innovation –
micro and macro evidences

Mannheim, March 19/20, 2018

Conference venue: ZEW, L7, 1, 68161 Mannheim

PARTICIPANTS LIST

Baccianti, Claudio
Tilburg University

Blandinières, Florence
ZEW Mannheim

Cantner, Uwe
Friedrich Schiller University Jena

Comin, Diego
Dartmouth and CEPR

Czarnitzki, Dirk
KU Leuven

Dosi, Giovanni
Santanna School of Advanced Studies

Fons-Rosen, Christian
Pompeu Fabra University

Giarda, Mario
Pompeu Fabra University

Gossner, Alfred
Fraunhofer Society e.V.

Häringer, Thomas
Government representation

Holden, Tom
University of Surrey

Ivanova, Olga
PBL Netherlands Environmental Assessment
Agency

Licht, Georg
ZEW Mannheim

Lorentz, Andre
BETA, University of Strasbourg

Mairesse, Jacques
UNU-MERIT

Martino, Roberto
DG RTD European Commission

McAdam, Peter
European Central Bank

Pellens, Maikel
ZEW Mannheim, KU Leuven

Peters, Bettina
ZEW Mannheim

Prodi, Elena
ADAPT

Profit, Stefan
Federal Ministry of Economics and Energy

Roeger, Werner
EU Commission

List of the FRAME Midterm Conference participants 2/2



Roger, Albert
ZEW Mannheim

Roventini, Andrea
Santanna School of Advanced Studies

Salinas, Daniel
Lisbon School of Economics & Management

Sanchez-Martinez, Miguel
European Commission-DG JRC

Schmitz, Tom
Bocconi University

Schubert, Torben
Circle

Toole, Andrew
US Patent and Trademark Office

Tsvetkova, Monika
CEPR

Verspagen, Bart
UNU-MERIT

Voigt, Sebastian
ZEW Mannheim

Table 6: Midterm Conference attendees by affiliation type and countries

Person	Affiliation type and country	Role
Uwe Cantner	Academia, Germany	Chair
Dirk Czarnitzki	Academia, Belgium	Chair
Olga Ivanova	Governmental Agency, Netherlands	Chair
Bart Verspagen	Academia, Netherlands	Keynote lecture
Diego Comin	Academia, UK	Keynote -Panel
Alfred Gossner	Academia, Germany	Keynote -Panel
Peter McAdam	European Central Bank, Germany	Keynote -Panel
Werner Roeger	EU Commission, Belgium	Keynote -Panel
Andrea Roventini	Academia, Italy	Keynote -Panel
Andre Lorentz	Academia, France	Presenter
Andrea Roventini	Academia, Italy	Presenter
Jacques Mairesse	Academia, Netherlands	Presenter
Maikel Pellens	Academia, Germany	Presenter
Mario Giarda	Academia, Spain	Presenter
Tom Holden	Academia, UK	Presenter
Giovanni Dosi	Academia, Italy	Presenter
Claudio Baccianti	Academia, Germany	Participant
Florence Blandinieres	Academia, Germany	Participant
Christian Fons-Rosen	Academia, Spain	Participant
Thomas Häring	Government representant, Germany	Participant
Georg Licht	Academia, Germany	Moderator
Roberto Martino	DG RTD European Commission, Belgium	Participant
Bettina Peters	Academia, Germany	Participant
Elena Prodi	ADAPT foundation, Italy	Participant
Stefan Profit	Federal Ministry of Economics and Energy, Germany	Participant
Albert Roger	Academia, Germany	Participant
Daniel Salinas	Academia, Portugal	Participant
Miguel Sanchez-Martinez	European Commission DG JRC, Belgium	Participant
Tom Schmitz	Academia, Italy	Participant
Torben Schubert	Academia, Sweden	Presenter
Andrew Toole	US Patent and Trademarks Office, US	Participant
Monika Tsvetkova	Foundation, UK	Participant
Sebastian Voigt	Academia, Germany	Participant