



Bio-based Industries  
Joint Undertaking

## Exchange of experiences and practices towards the adoption of innovation

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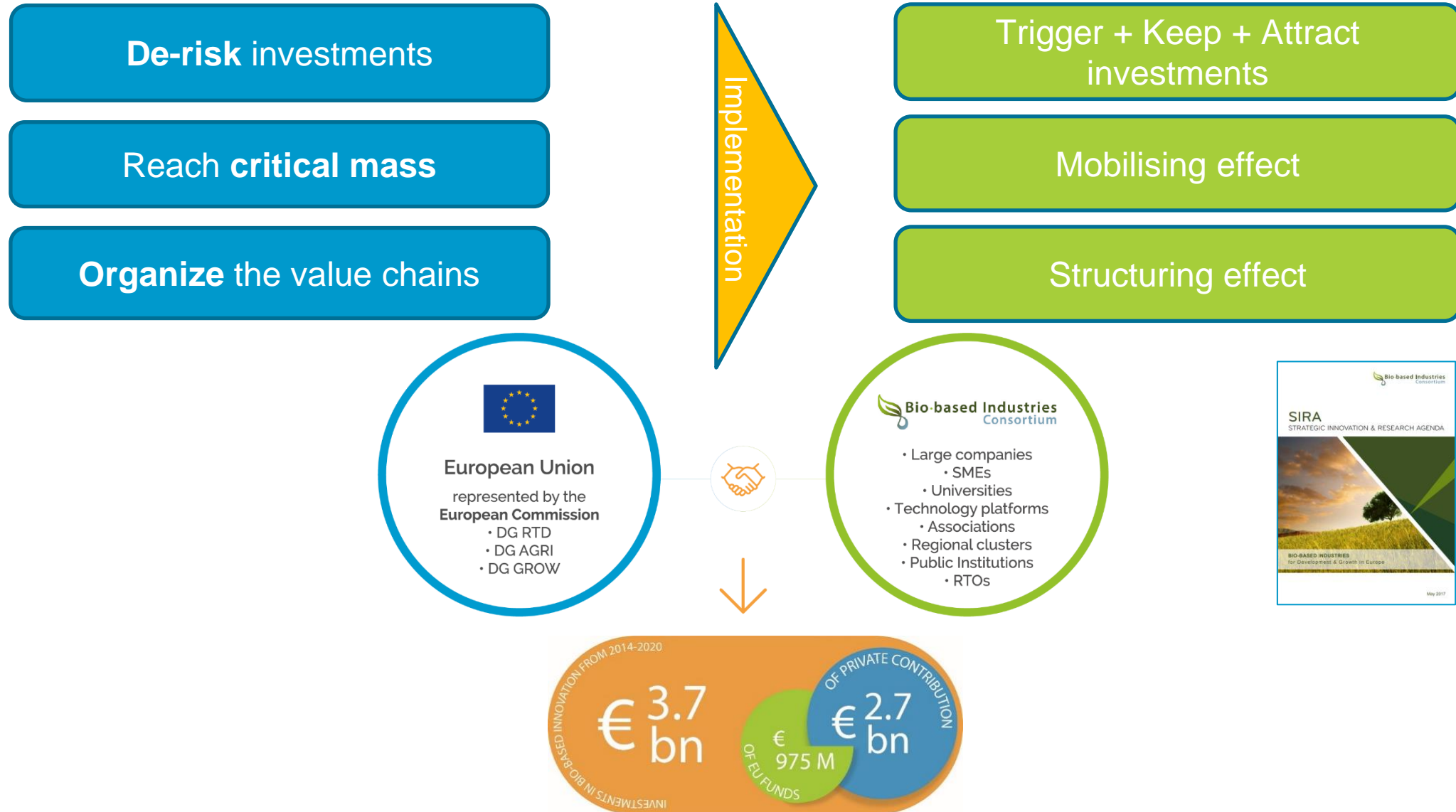
*Workshop PRIMA Synergies with EU, Regional and International Organisations  
21&22 November Athens, Greece*

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# Public Private Partnership, part of the EU Bioeconomy Strategy in 2012





# BBI JU objectives

**Develop sustainable and competitive bio-based industries in Europe, based on advanced biorefineries that source their biomass sustainably by:**

1. **Demonstrating new technologies** to fill the gap in value chains
2. **Developing business models** integrating all economic actors along the value chain
3. **Setting up flagship biorefinery plants** deploying business models & technologies to keep investment in the EU

## **BBI JU impact by 2030**

**50%** greenhouse gas emissions  
**20%** biomass supply  
**25%** mobilization of unused sources  
**30%** replacement of petroleum-based products  
**10** times more bio-based materials

400.000 skilled jobs by 2020  
rising to 700.000 skilled jobs by 2030



80% of which will be in rural areas





# BBI JU : high impact initiative

**101**  
projects



**€602 m**  
BBI JU funding



**33**  
countries



**1178**  
beneficiaries



**40**  
% SMEs



Call  
2014

Call  
2015

Call  
2016

Call  
2017

Call  
2018

Call  
2019

Call  
2020

2021

2022

2023

2024

**7 Calls • € 813 million EU grant**

- ▲ Project coordinator
- Project partner
- 🏭 Demonstration plant
- 🚧 Flagship plant



# Structuring effect



## STRUCTURING AND MOBILISING BIO-BASED INDUSTRY

The two main positive effects of BBI JU are the structuring effect in organising the value chains across sectors and the innovation-driven mobilising effect of all key stakeholders across sectors and geographies.

BBI JU is contributing to the fast transformation of the bio-based sector: processes, feedstock and actors that were not traditionally part of the bio-based economy are now becoming fully involved in it. Through our projects, we foster new cross-sectoral collaborations, transforming once linear value chains into more interconnected ones.

- **113 new bio-based value chains expected by 2020**  
*versus the 2020 target of 10 new ones*
- **143 new cross-sector interconnections expected by 2020**  
*versus the 2020 target of 36 new ones*

For example, our EFFECTIVE project has created innovative value-chains by combining different biomasses (e.g. sugar beets, beech wood) to produce bio-based nylon. Bio-based nylon is a valuable material for a wide range of applications such as garments, carpet solutions and primary packaging.



# Market uptake & Science and knowledge generation



## BOLSTERING MARKET UPTAKE

BBI JU is supporting the introduction of innovations into the market by boosting large-scale production and the creation of sustainable products and materials with an equal or overall better performance than their fossil-based counterparts. This results in a plethora of innovations aimed at satisfying consumer and industrial needs.

- **147 new bio-based materials expected by 2020**  
*versus the 2020 target of 50 new ones*
- **67 new bio-based chemical building blocks expected by 2020**  
*versus the 2020 target of 5 new ones*
- **65 new bio-based products expected by 2020**  
*versus the 2020 target of 30 new ones*

## SCIENCE AND KNOWLEDGE CREATION

BBI JU enables scientific advancements and knowledge creation in the context of bio-based innovations, by spurring collaborations between actors that would not interact otherwise.

To this end, all our projects work to increase maturity levels in technologies, enabling the leap from lab-scale testing to industrial scale biorefineries.

- **our RIA projects expect at least one technological advancement for 33 core technologies by 2020**  
*versus the 2020 target of 20 new advancements*



# Contribution to socio-economic and environmental impacts



**CREATING  
JOBS**

**80%**

of ongoing projects support the creation of new skilled jobs in the bioeconomy, many of them in rural and coastal areas. Our first seven flagship biorefinery projects alone will generate more than 3 000 direct and 10 000 indirect jobs.



**REDUCING  
EMISSIONS**

**71%**

of ongoing projects expect to deliver bio-based products with lower greenhouse gas emissions than the fossil-based alternatives.



**LEVERAGING  
INVESTMENTS**

**€1bn**

Our first seven flagship biorefinery projects alone are expected to generate more than 1 billion of investments from private industry.



**ENHANCING  
SUSTAINABILITY  
AND CIRCULARITY**

**66%**

of ongoing projects contribute to waste reduction, reuse, recycling, as well as turning waste and sidestreams into added-value products, supporting the build-up of a circular economy.



**FOSTERING  
COLLABORATIONS**

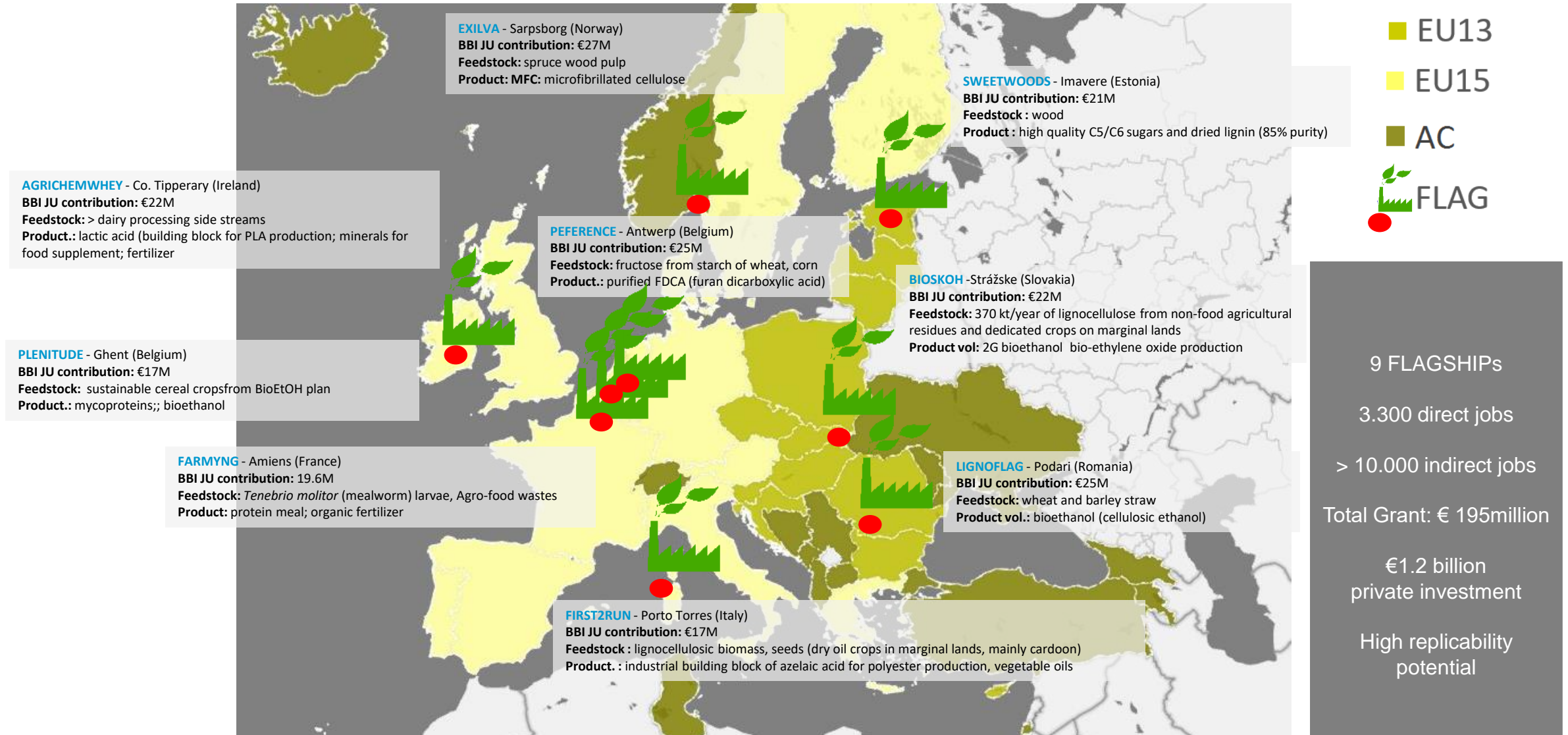
**80%**

of our ongoing projects increase the cooperation between academia and industry, paving the way for further bio-based developments.





# Delivering innovation and impact: FLAGSHIPS







- Flagship in Sardinia, Italy
- Biomass: oil crops (**cardo**); farming on marginal land / large scale cultivation
- Processing of cardoon into **bio-monomers & esters** towards bio-based products, such as biolubricants, cosmetics & bioplastics → Demonstration of the technological, economic and environmental sustainability at an industrial scale
- Valorization of **by- and co-products for feed products**, added value chemicals, and energy
- Valorization of currently **unexploited marginal land** : (3500 ha) for production of vegetable oil (at least 0.375 ton/ha) to be processed to bio-based products (cascading approach)

### **Revitalization of the local economy through:**

- **Reindustrialisation:** reconversion of a no longer competitive site
- **Creation of skilled jobs:** estimated are 60 new skilled jobs for each kton of produced bioplastics, in the whole value chain, from agriculture to the end life of the final products (incl. municipalities, composting plants)



# Synergies with EU partnerships

- Ongoing synergies with PPP
- Synergy label
- Potential synergies with PRIMA



# Synergies with EU partnerships

- Joint working group with SPIRE (cPPP)



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- Since 2012, both PPPs have been formed and are implementing their respective programmes in the framework of Horizon 2020.
- Synergies and complementarities between the two PPPs have been developed and added-value of cooperation between the initiatives is being demonstrated 2 public private partnerships
- Main objective: maximise synergies among both initiatives while avoiding overlap in terms of topics coverage and funding





# Synergies with EU partnerships

Joint working group with SPIRE (cPPP) established in 2016



Joint statement on 'team-up for synergy of actions'<sup>1</sup> at 3 levels:



1. **Strategic level:** by incorporating synergies and complementarity in each respective research agendas, work programmes and therefore call for proposals
2. **Implementation level:** by connecting related funded projects in the separate calls with each other, across the boundaries of the PPPs;
3. **Communication and networking level:** by supporting cooperation and networking among BBI and SPIRE communities to maximise the impacts, benefitting the whole industrial community.



**Main achievement: alignment of Strategic Agendas ensuring complementarity of these initiatives and striving for synergies between topics**

(1) <https://www.bbi-europe.eu/sites/default/files/joint-statement-bbiju-spire.pdf>

## Applies to:

- ✓ Will ensure the uptake of **excellent proposals** that could not be financed in spite of their excellent marks due to lack of sufficiently available budget
  - ✓ Will contribute to enhance **synergies** between BBI JU and Member States and regions in the field of Bio-Based Industries
  - ✓ Will ensure the take up of the **Synergy Label**: ESIF – EIB (EFSI and InnovFin) – EBRD – Member States and regions
- **Innovation Actions** (DEMOs and FLAGSHIPS):
    - localization of investments close to market: socio-economic and environmental impact
  - Proposals included in the **reserve list** of H2020-BBI-JTI-2018 Call (18 proposals):
    -  13 DEMOs
    -  5 FLAGSHIPS



# BBI JU Synergy Label Pilot 2019

12 out of 18 proposals received the BBI JU Synergy Label

- SUPROV
- NUTRIBANK
- BIOBESTcide
- ALINA
- D-rAinBOW
- HEALTHnALGAE
- STARSHIP
- Nut-WAVE
- BIO-Proseed
- ProtiFinery
- Bio-Beetchem
- TAN-UP



MEMORANDUM OF UNDERSTANDING  
BETWEEN

BIO-BASED INDUSTRIES JOINT UNDERTAKING

AND

EUROPEAN BANK FOR RECONSTRUCTION AND  
DEVELOPMENT

IN RESPECT OF

COOPERATION FOR PROMOTING  
INVESTMENTS IN THE BIOECONOMY

**SIGNED 24 September 2019**





# Potential synergies with PRIMA

- Widening participation includes actions to increase the participation of Mediterranean Region

Great potential for biobased and circular economy to exploited

Participation in National and regional events (EL, ES, PT, IT) have provided the opportunity to local value chain stakeholders to become familiar with BBI JU programme and the potential funding opportunities

Collaboration with PRIMA is instrumental increase the reach out stakeholders in the biobased and circular economy and promote BBI JU programme



# BBi JU Stakeholder Forum 2019

Register by 25 November!



4 December 2019



The Egg, Brussels



[stakeholderforum.bbi.europa.eu](https://stakeholderforum.bbi.europa.eu)



600+ attendees expected



100 projects exhibiting



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## BBi JU Stakeholder Forum 2019

4 December 2019

[REGISTER](#)









**Thank you!**


## Contact us

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