



Removing organisational and institutional barriers to crop diversification

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ANNUAL MEETING
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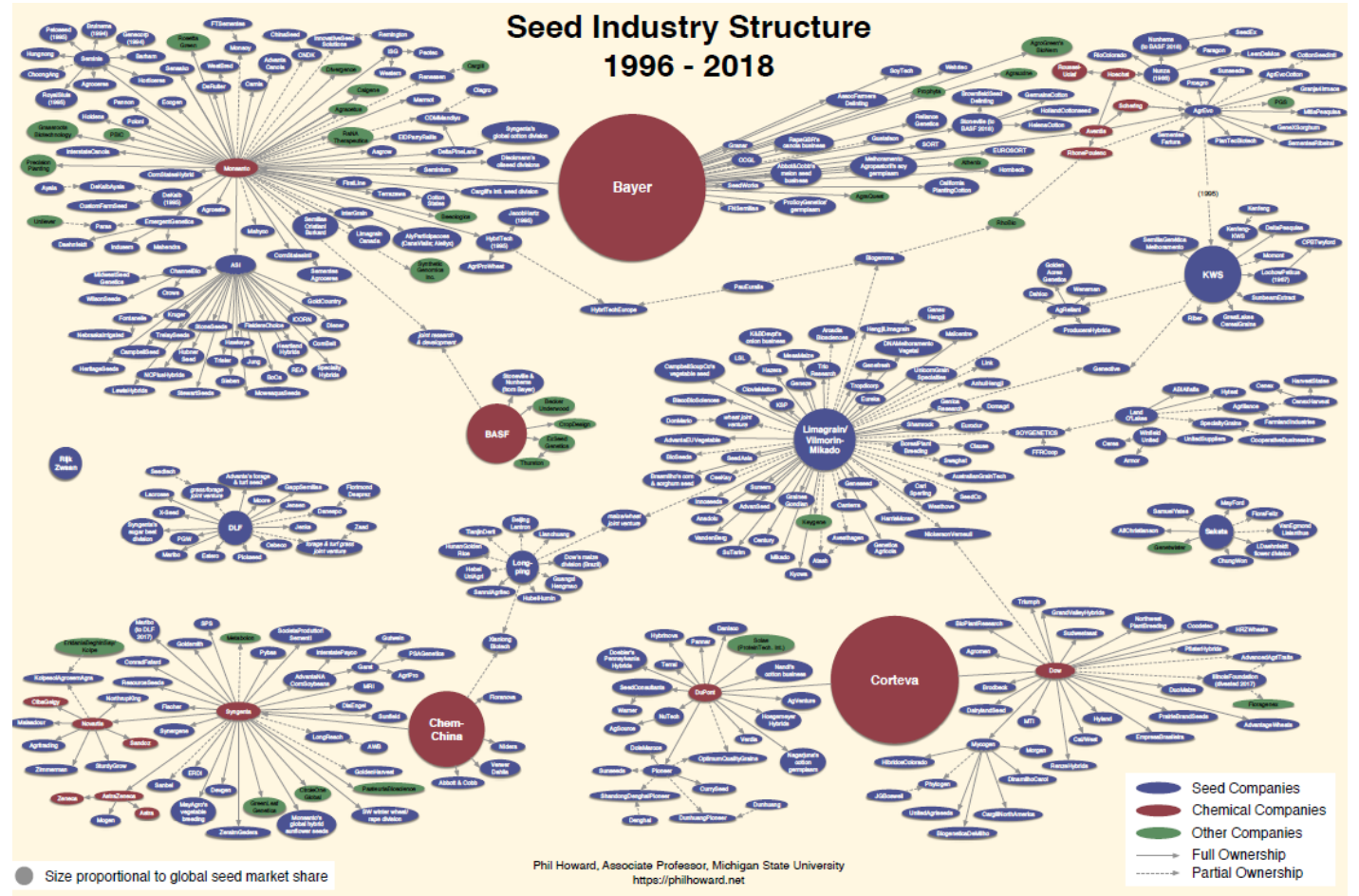
The projects in the crop diversification cluster have received funding from the European Union's Horizon 2020 research and innovation programme

Setting the scene: Value chains concentration and integration, agricultural specialisation and intensification in agri-food systems

(IPES-Food, 2017) (IPES-Food, 2016)



Powerful actors organising value chains integration and concentration



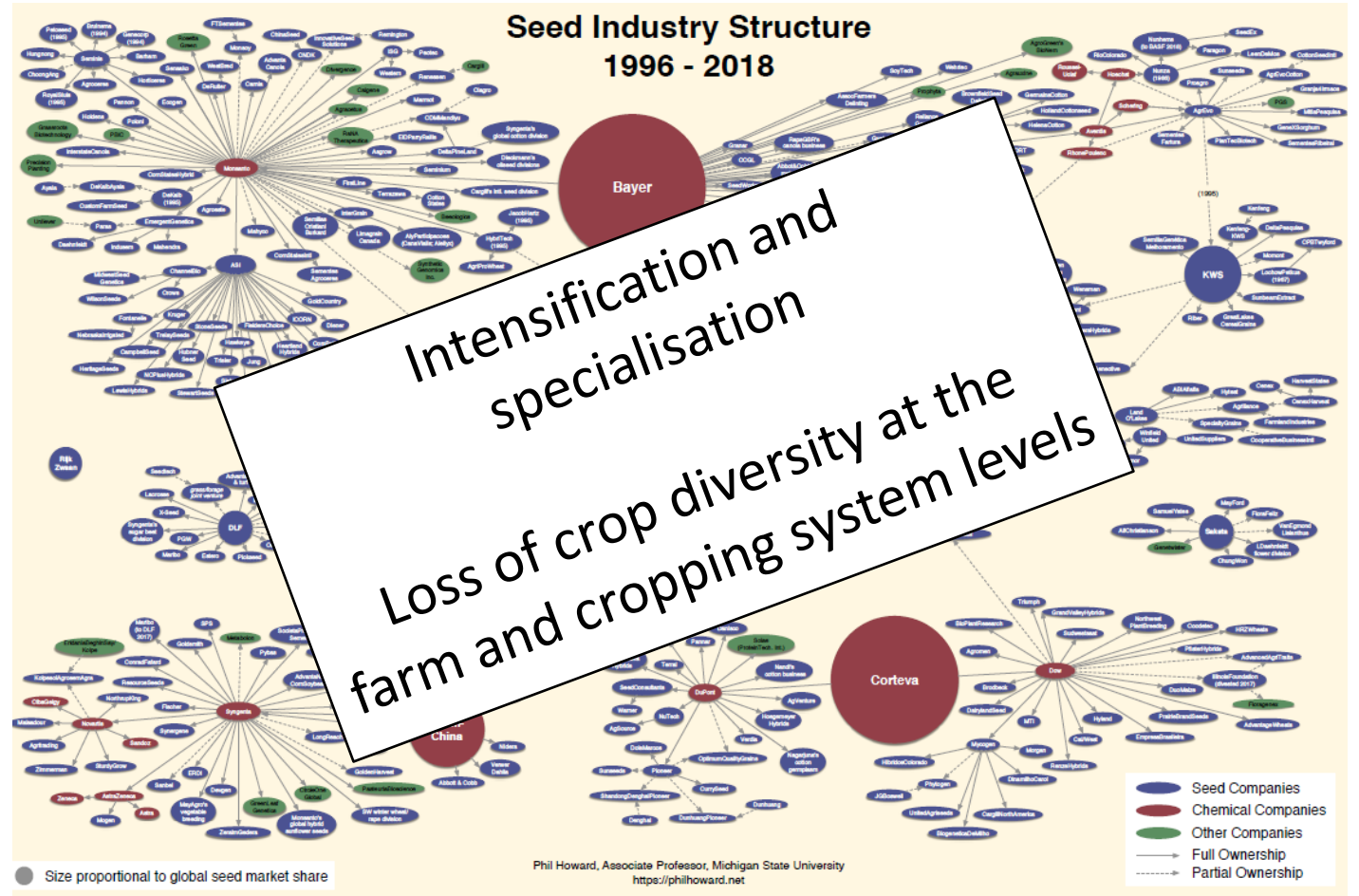
(Howard, 2018)

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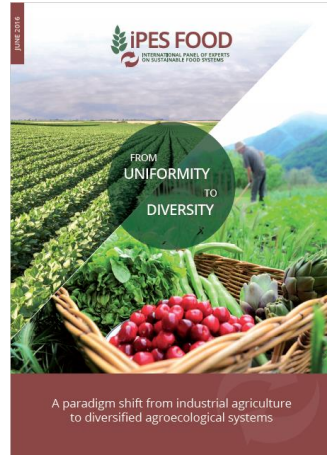
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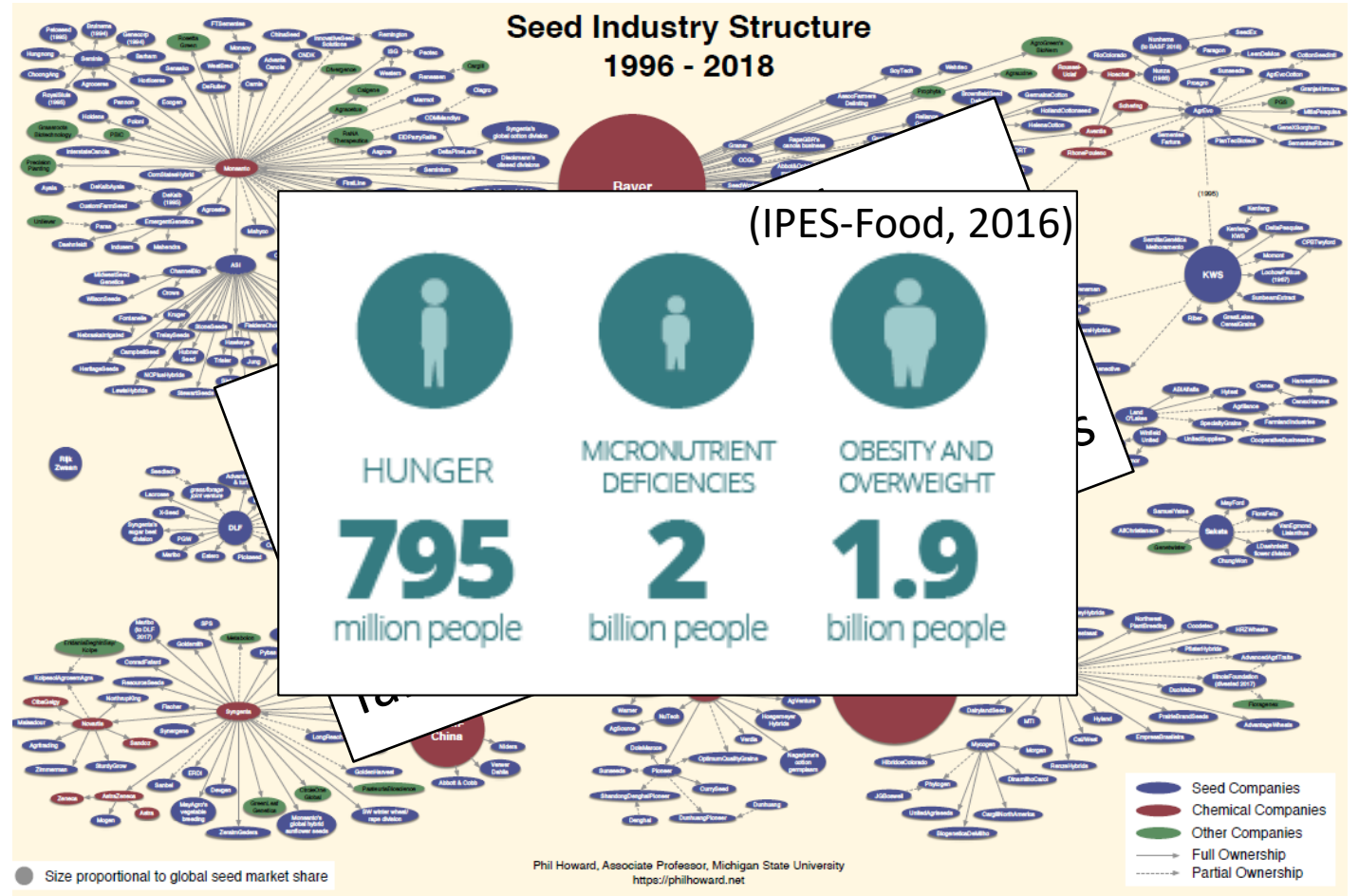
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Powerful actors organising value chains integration and concentration



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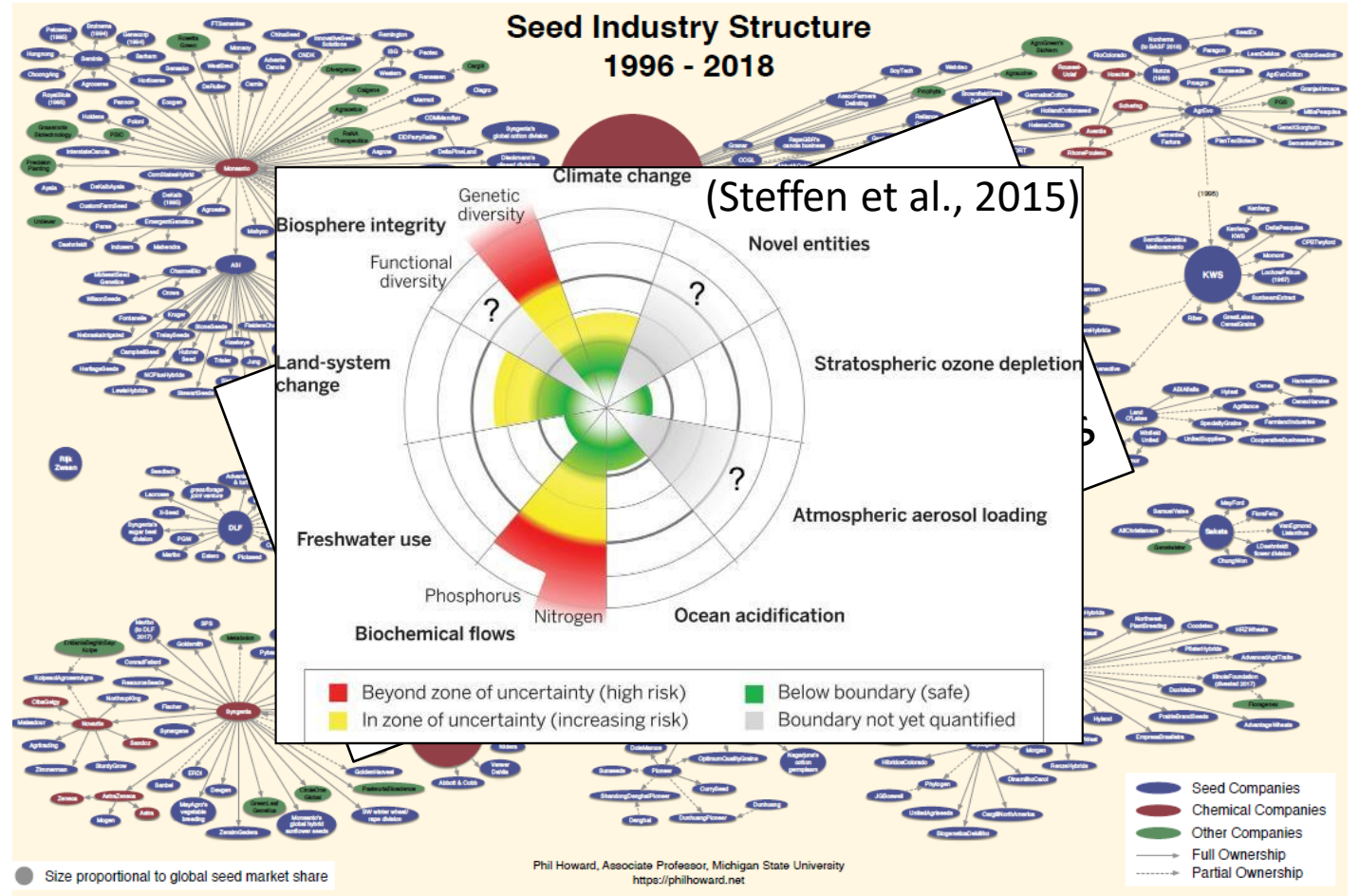


Setting the scene: Value chains concentration and integration, agricultural specialisation and intensification in agri-food systems

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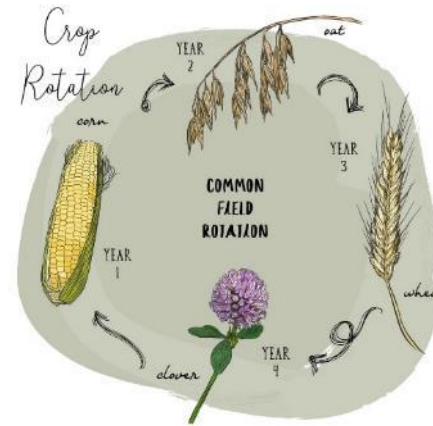
Powerful actors organising value chains integration and concentration



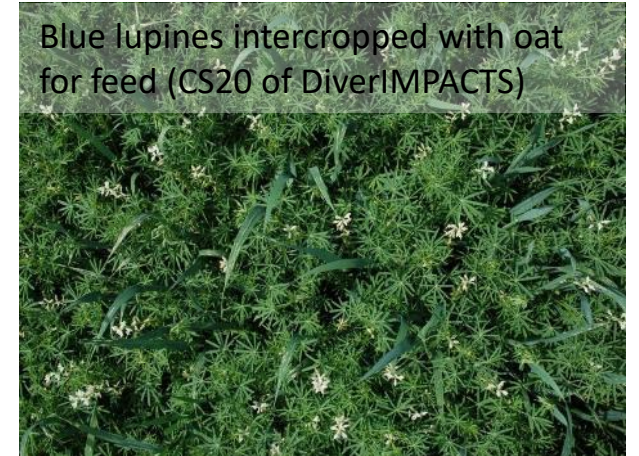
(Howard, 2018)

Setting the scene: What is crop diversification?

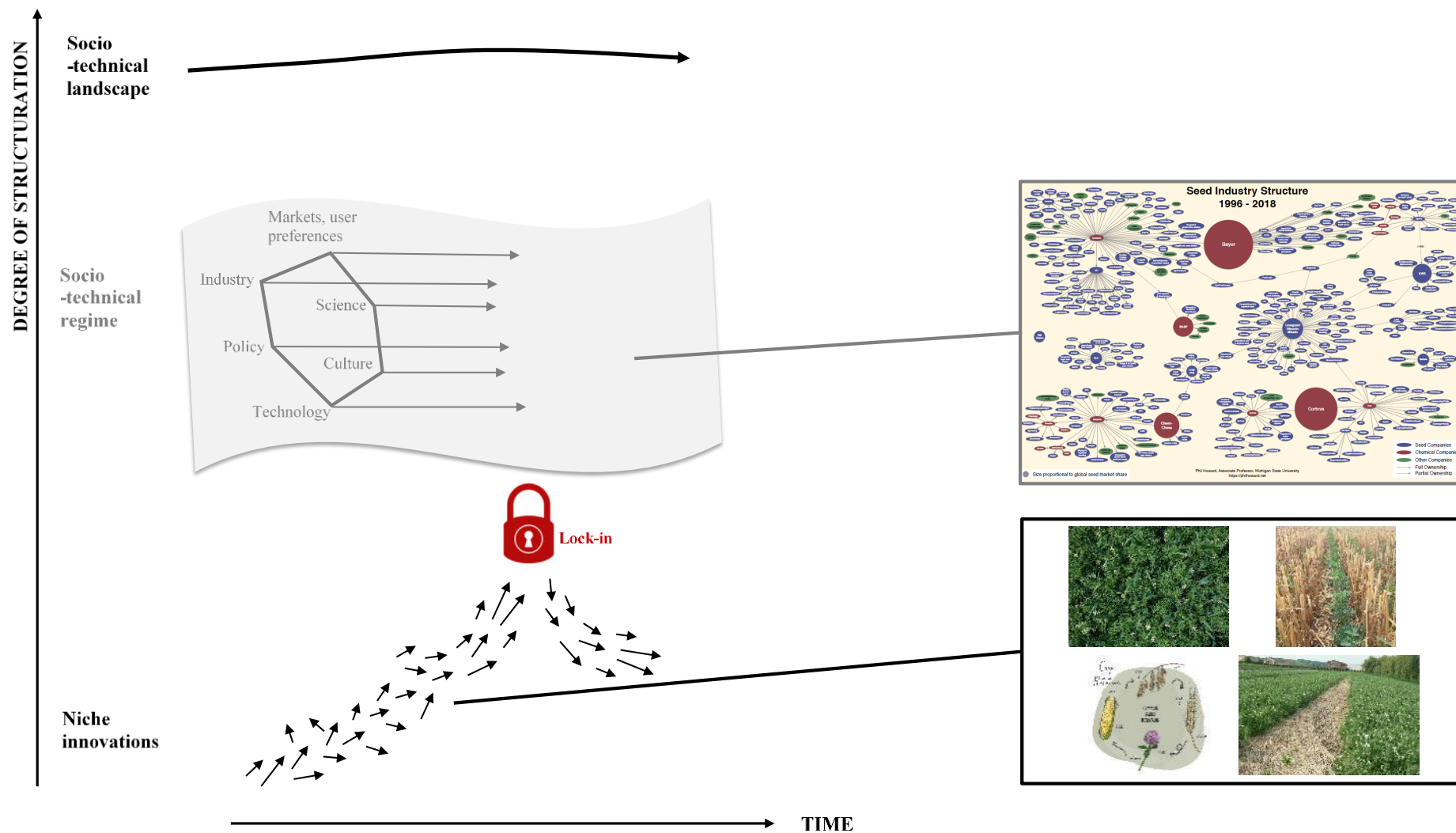
- Act or process of diversifying crop production
 - Increasing the heterogeneity within crop cultivars
 - Increasing the number of cultivars
 - Increasing the number of species
 - On the same land-area in successive growing seasons (**crop rotation**)
 - On the same land within a growing season (**multiple cropping**)
 - In proximity within the same field (**intercropping**, e.g., row intercropping, strip cropping, mixed cropping, agroforestry)



Blue lupines intercropped with oat for feed (CS20 of DiverIMPACTS)



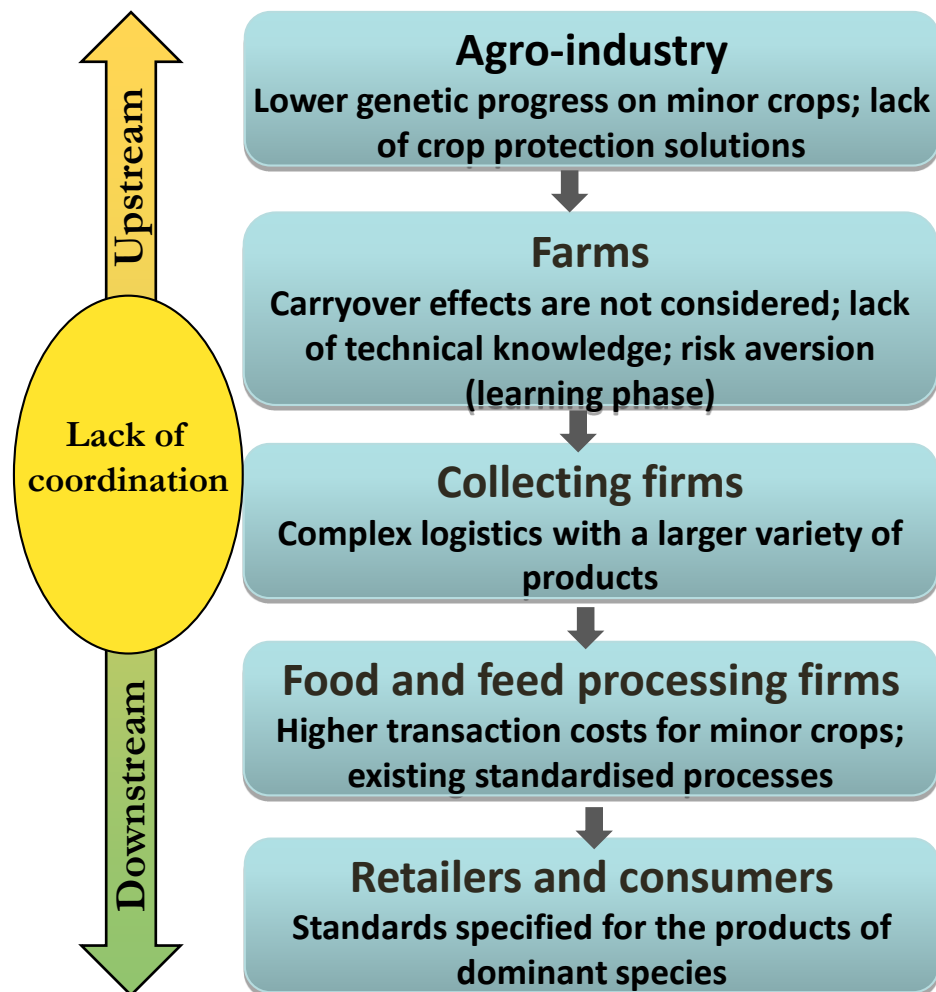
Setting the scene: The socio-technical lock-in to crop diversification



(adapted from Olivier et al., 2018 who adapted it from Geels, 2002)

Socio-technical barriers to crop diversification

(Meynard et al., 2018)



- Crop diversification as a technological, organisational and institutional innovation
- A change in crop production systems implying both
 - the development, diffusion and use of particular technologies at different levels of agri-food systems;
 - a change in the way agri-food systems are organised and governed.

Illustration from a crop diversification experience



Technological innovation



Organisational innovation



- Wheat+lentil
- Optical sorter

- Direct selling to consumers
- Technical advisory service on wheat+lentil

Illustration from DiverIMPACTS case studies



Case Study	FROM IDEA TO REALIZATION										COMPANIES									
	1. Market	2. Technology	3. Business Model	4. Production	5. Distribution	6. Marketing	7. Financial	8. Environmental	9. Social	10. Governance	11. Market	12. Technology	13. Business Model	14. Production	15. Distribution	16. Marketing	17. Financial	18. Environmental	19. Social	20. Governance
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25	UK																			

Technological innovation



Organisational innovation



Institutional innovation



(adapted from Bliss et al., 2019 and Howard, 2019)

Illustration from DiverIMPACTS case studies



Case Study	FROM IDEA TO REALITY										CONSEQUENCES									
	Market	Knowledge of the market	Business plan	Business model	Business strategy	Business development	Business operations	Business results	Business impact	Business sustainability	Business innovation	Business growth	Business profitability	Business risk	Business compliance	Business reputation	Business social impact	Business environmental impact	Business economic impact	Business cultural impact
1	IT																			
2	UK																			
3	DE																			
4	DE																			
5	FR																			
6	FR																			
7	FR																			
8	FR																			
9	IT																			
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16	DE																			
17	DE																			
18	DE																			
19	SE																			
20	CH																			
21	DE																			
22	IT																			
23	IT																			
24	UK																			
25	FR																			

Technological innovation



Organisational innovation



Notification Number: 2018/546/1

Draft Regulation laying down the definition of maximum levels of tetrahydrocannabinol (THC) in food.

Date received : 30/10/2018
End of Standstill : 31/01/2019

Institutional innovation



(adapted from Colombo et al., 2019)

Illustration from DiverIMPACTS case studies



Case Study	FROM FARM TO MARKET										COMPANIES									
	Knowledge of the market	Market orientation	Product differentiation	Product quality	Product safety	Product traceability	Product innovation	Product branding	Product packaging	Product distribution	Product promotion	Product pricing	Product availability	Product consistency	Product reliability	Product sustainability	Product social responsibility	Product transparency	Product accountability	Product integrity
1	UK																			
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3	UK																			
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Technological innovation



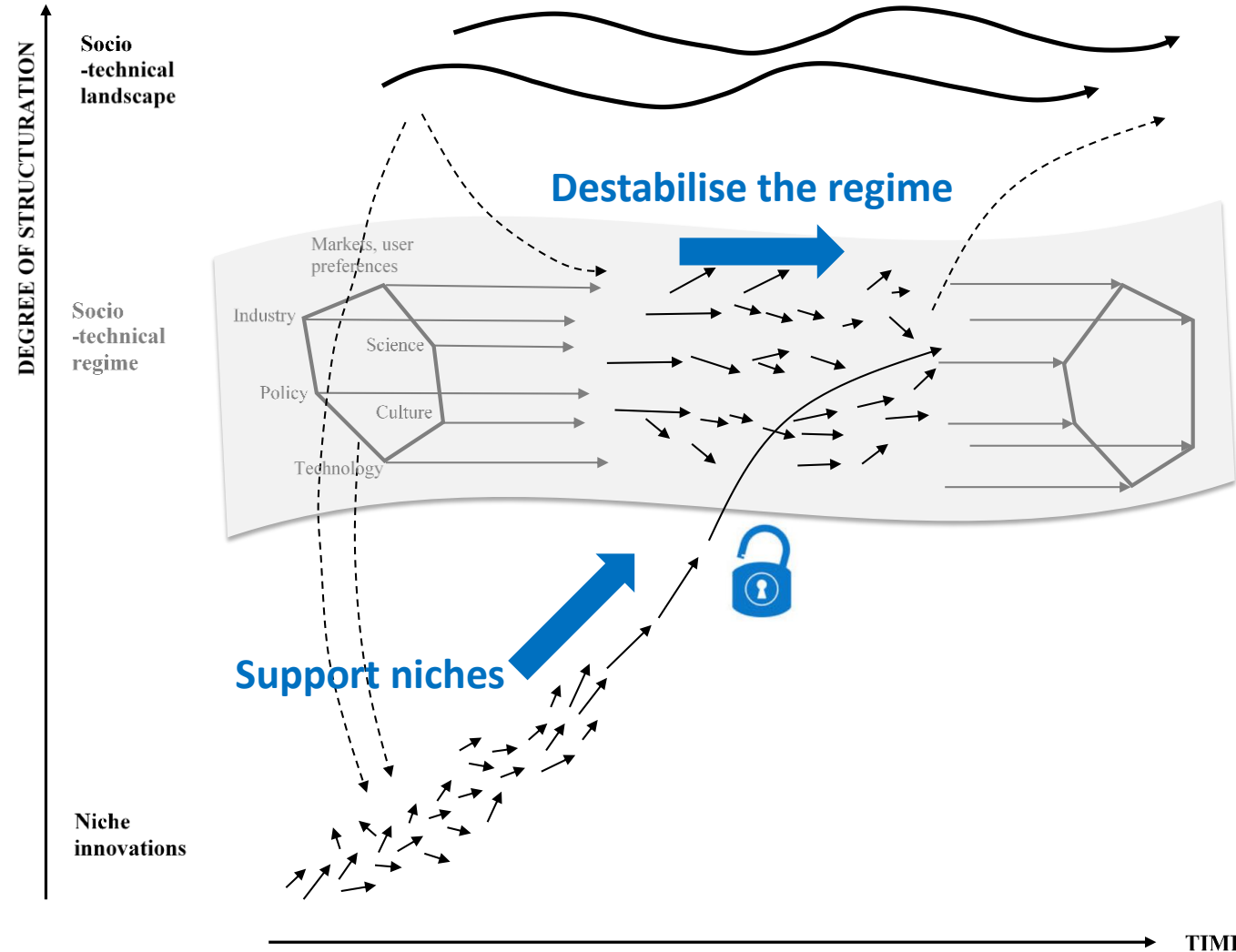
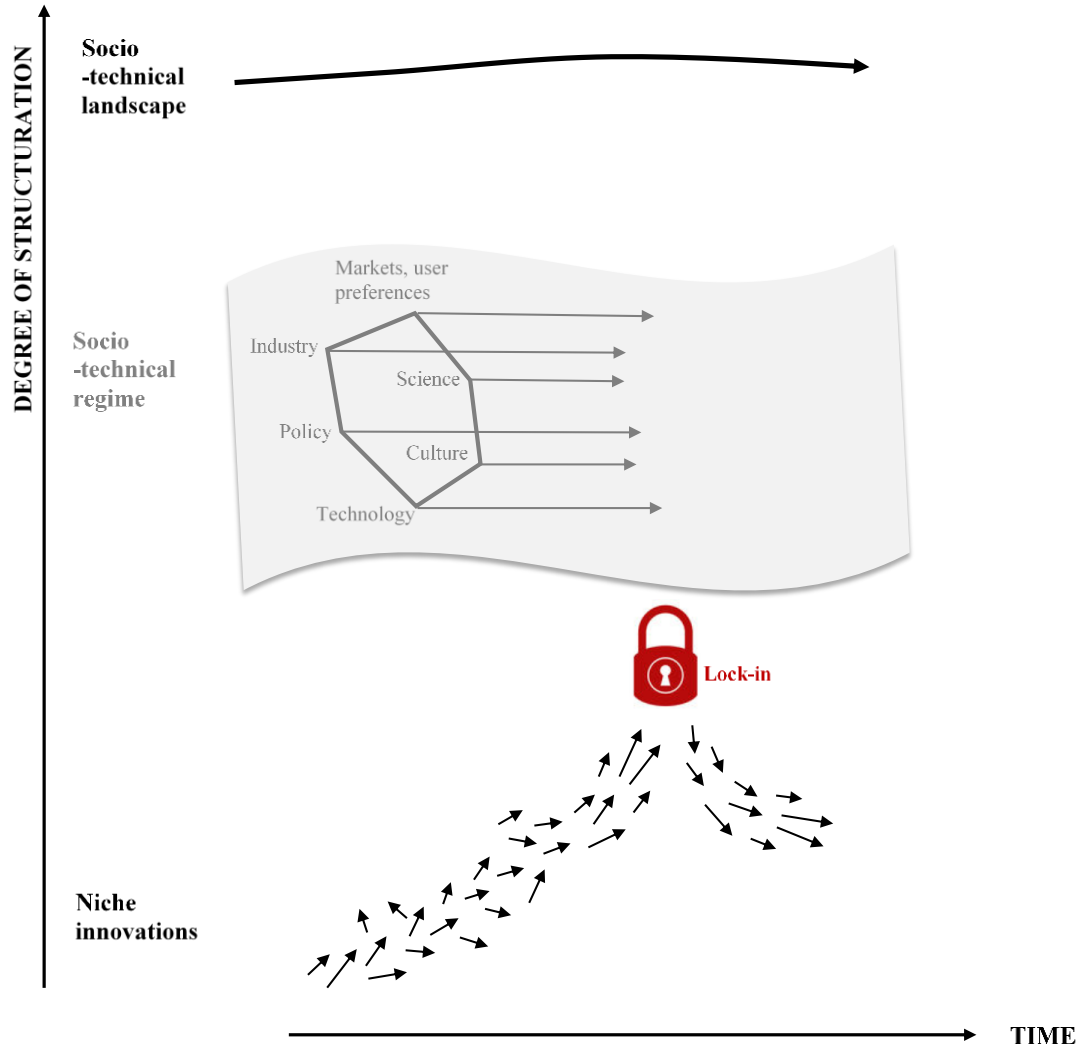
Organisational innovation



Institutional innovation



Unlocking the potential of crop diversification to support sustainability transitions

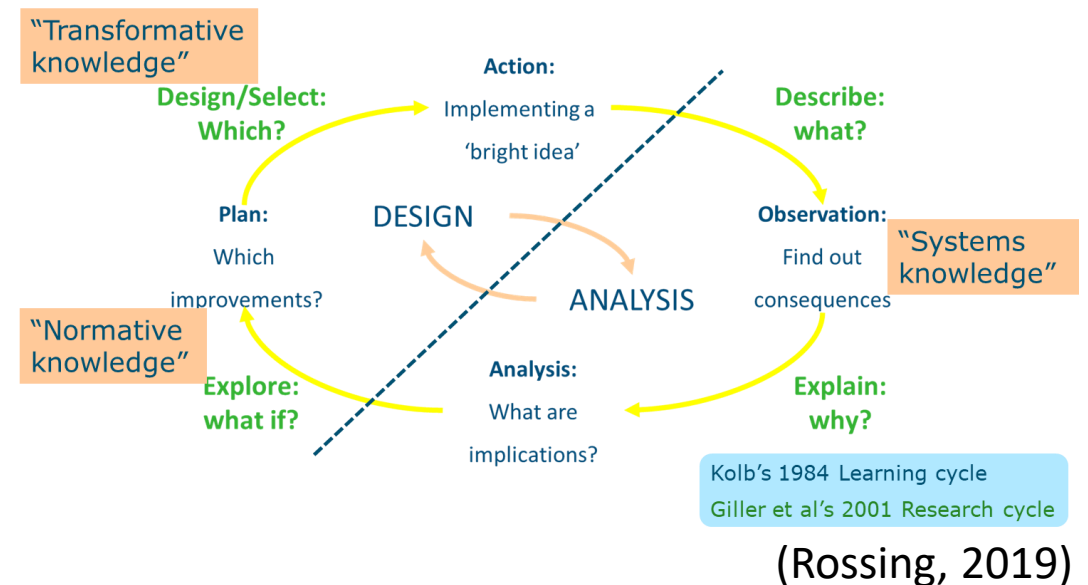


(adapted from Olivier et al., 2018 who adapted it from Geels, 2002)

Learnings from the European Conference on Crop Diversification (Budapest, Hungary, September 2019)



- Supporting the development of crop diversification options in niches requires:
 - Integrating multi-dimensional, multi-scale and multi-actor-oriented approaches in co-learning cycles to identify crop diversification options that can fit local contexts and people, while meeting sustainability goals
 - System diagnosis
 - 'Actionable knowledge' transfer beyond case-studies and research projects



Learnings from the European Conference on Crop Diversification (Budapest, Hungary, September 2019)



- Destabilising the socio-technical regime requires:
 - Expanding the network of actors supporting crop diversification to create windows of opportunities for alternative pathways of development
 - (Re)distributing roles of different actors along these paths



- Value chain actors
- Researchers
- Political actors
- Advisory, education and training agencies
- Citizen and consumer agencies
- Media agencies
- Etc.

The Crop diversification cluster

- Knowledge transfer among projects
- Knowledge transfer beyond projects
- Working groups:
 - Barriers to crop diversification
 - Multi-criteria and -scale assesment
 - Tools to support crop diversification
 - Policy recommendations
 - Communication



SFS-02-2016: Teaming up for good:
Exploiting the benefits of species
diversity in cropping systems



**SFS-26-2016: Legumes - transition
paths to sustainable legume-based
farming systems and agri-feed and
food chains**



**RUR-06-2016: Crop diversification systems
for the delivery of food, feed, industrial
products and ecosystems services – from
farm benefits to value-chain organisation**



More info at <https://www.cropdiversification.eu/>

Towards a Crop diversification network?

- Which objectives?
 - Knowledge sharing
 - Building bridges
- Who should be involved?
 - Actors of agri-food systems
- Which governance?
 - Shared
- Which structure?
 - Should allow individual and collective exchanges



More info at

https://www.cropdiversification2019.net/news.html?tx_news_pi1%5Bnews%5D=338&cHash=3aeae74dba31013dfce22e93f5463a99

Acknowledgments



The projects in the crop diversification cluster have received funding from the European Union's Horizon 2020 research and innovation programme

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