

BEHAVIOR PATTERNS TO THE INTENSIFICATION VARY DIFFERENTLY WITHIN DAIRY PRODUCERS

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Agro-Bio Tech



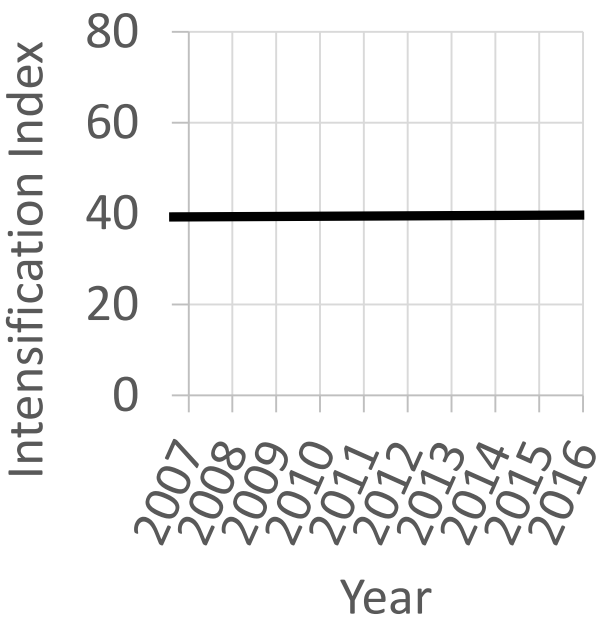
Intensification

↗ of intensification between 2004 & 2013
for **24** / 28 UE countries (UE, 2016)

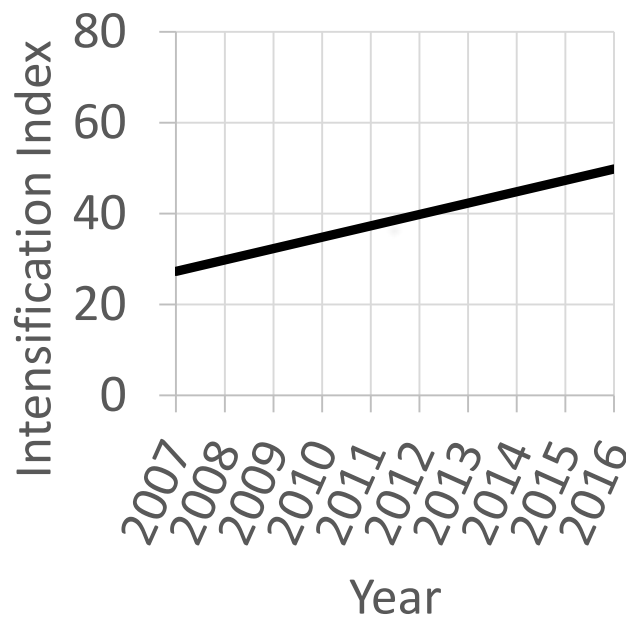
DO THE BEHAVIOR PATTERNS TO THE INTENSIFICATION VARY DIFFERENTLY WITHIN DAIRY PRODUCERS?

Conclusion

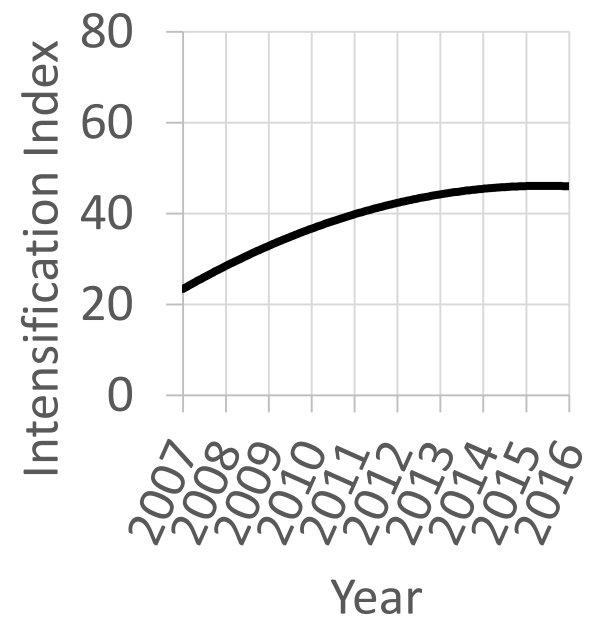
Principal patterns :



27%



8%



24%

Objective

Intensification

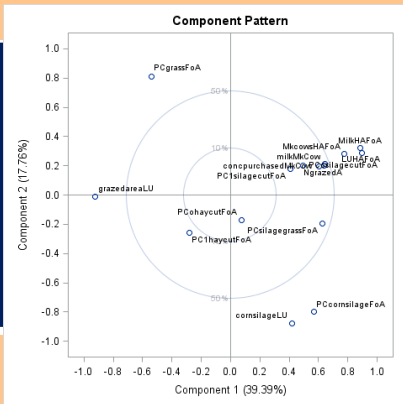
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Over time

**Different ways
of evolution**

Why?

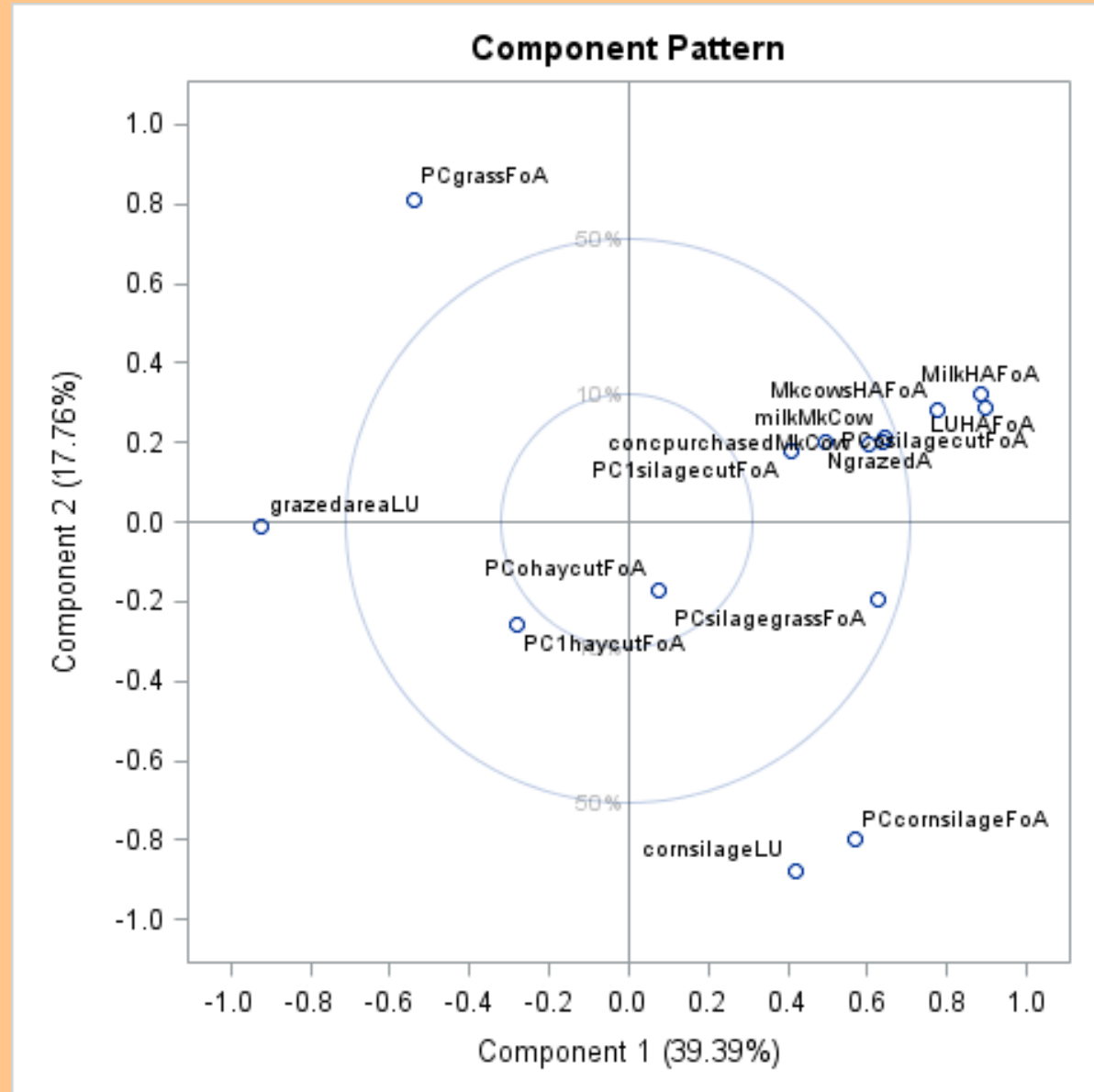


Over time

Different ways
of evolution

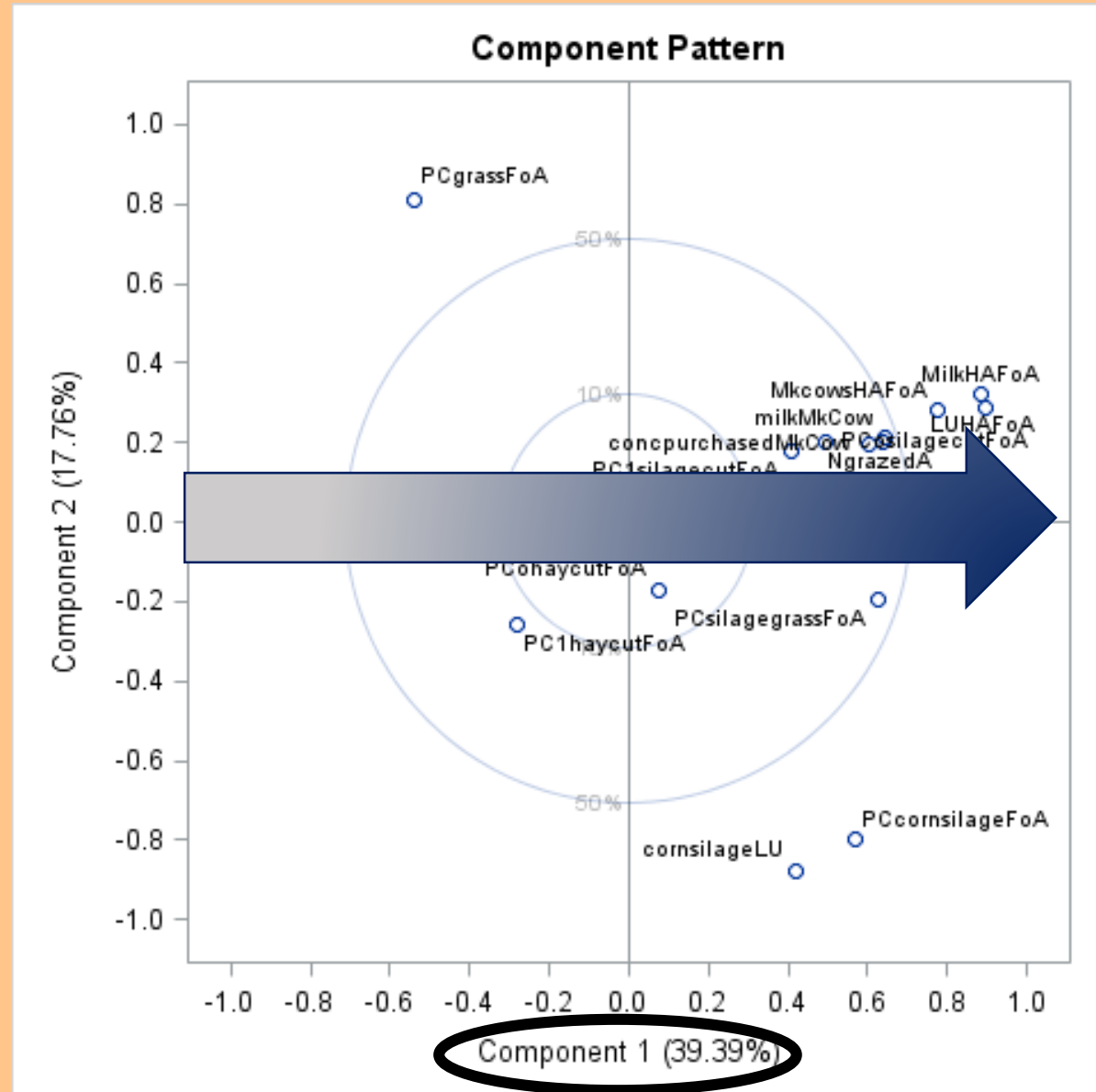
Why?

- 144 dairy producers accounts in the Walloon Region
- During 10 years 2007-2016
- Selection of 15 intensification variables
 - % of first/other hay/silage cut
 - N fertilizer/ha of forage area (FA)
 - Composition of FA (grass, corn silage, grass silage)
 - Grass/corn silage per LU
 - Purchased concentrated per cow
 - Milk/ cow, milk/ ha, cow/ha, LU/ha

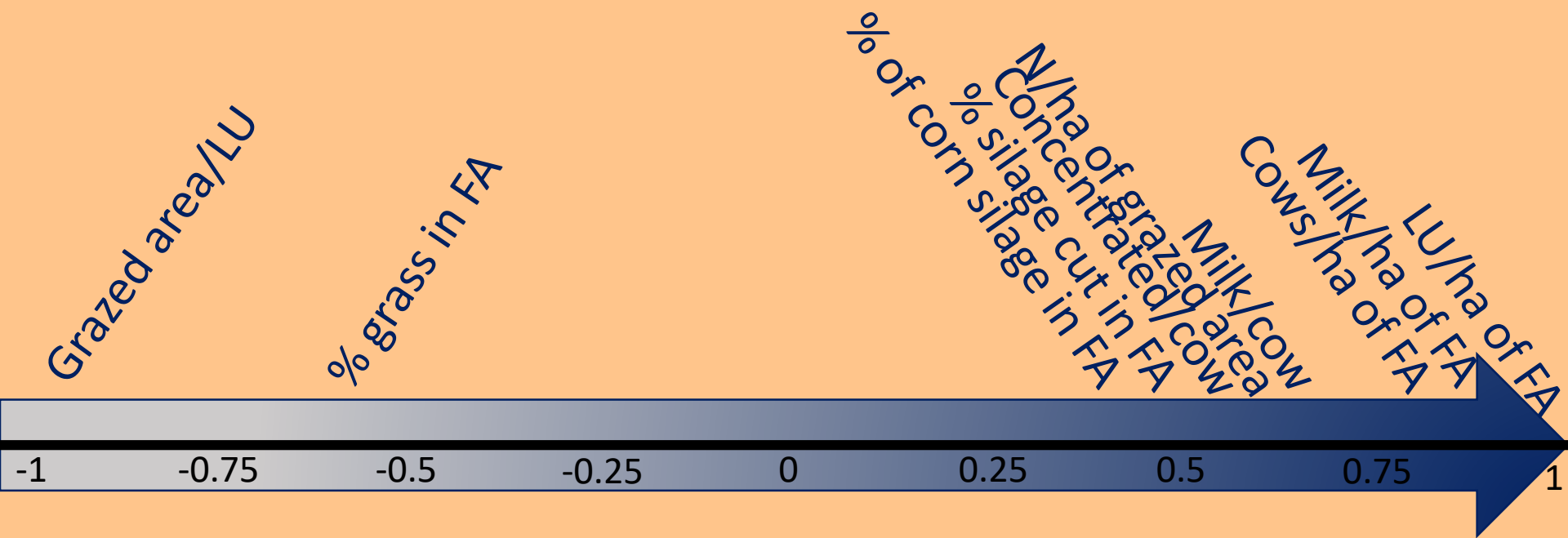


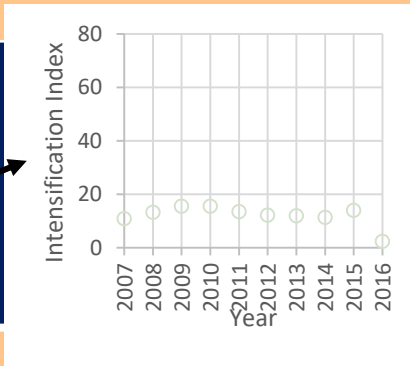
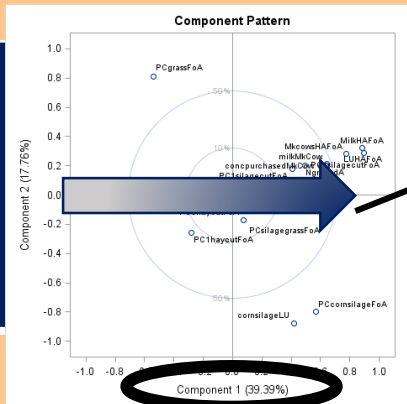
- 144 dairy producers accounts in the Walloon Region
- During 10 years 2007-2016
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Principal component analysis



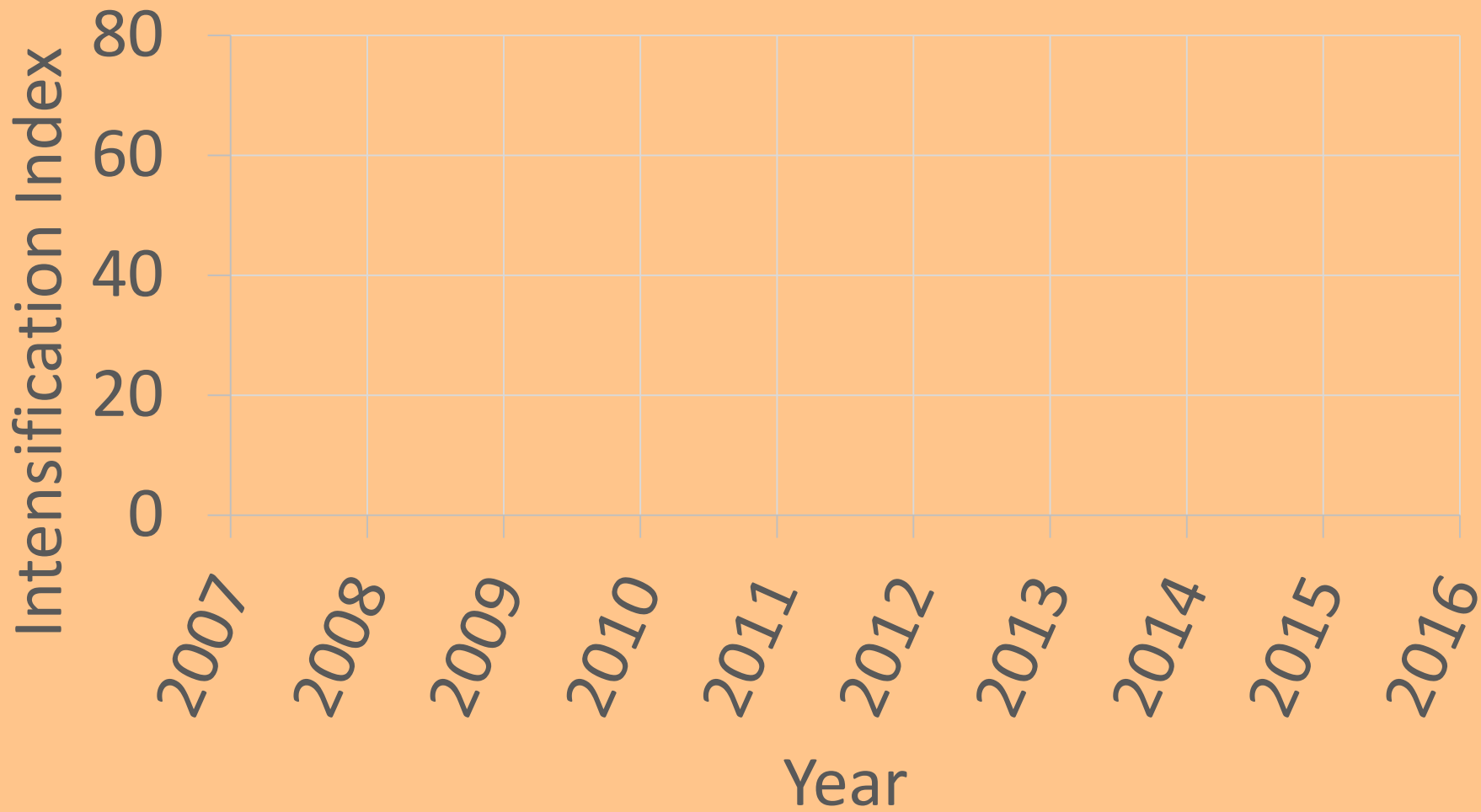
Correlations intensification variables –index

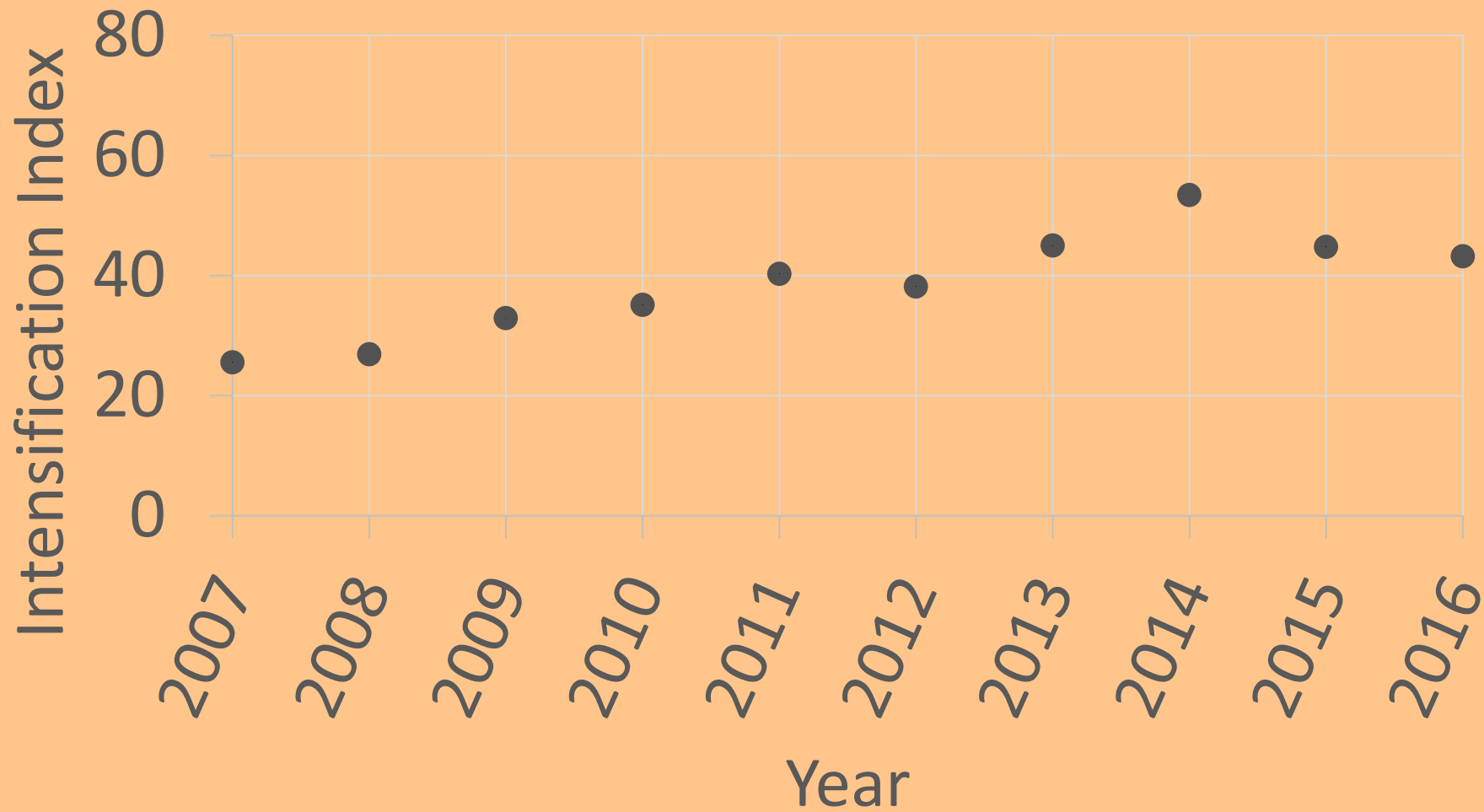




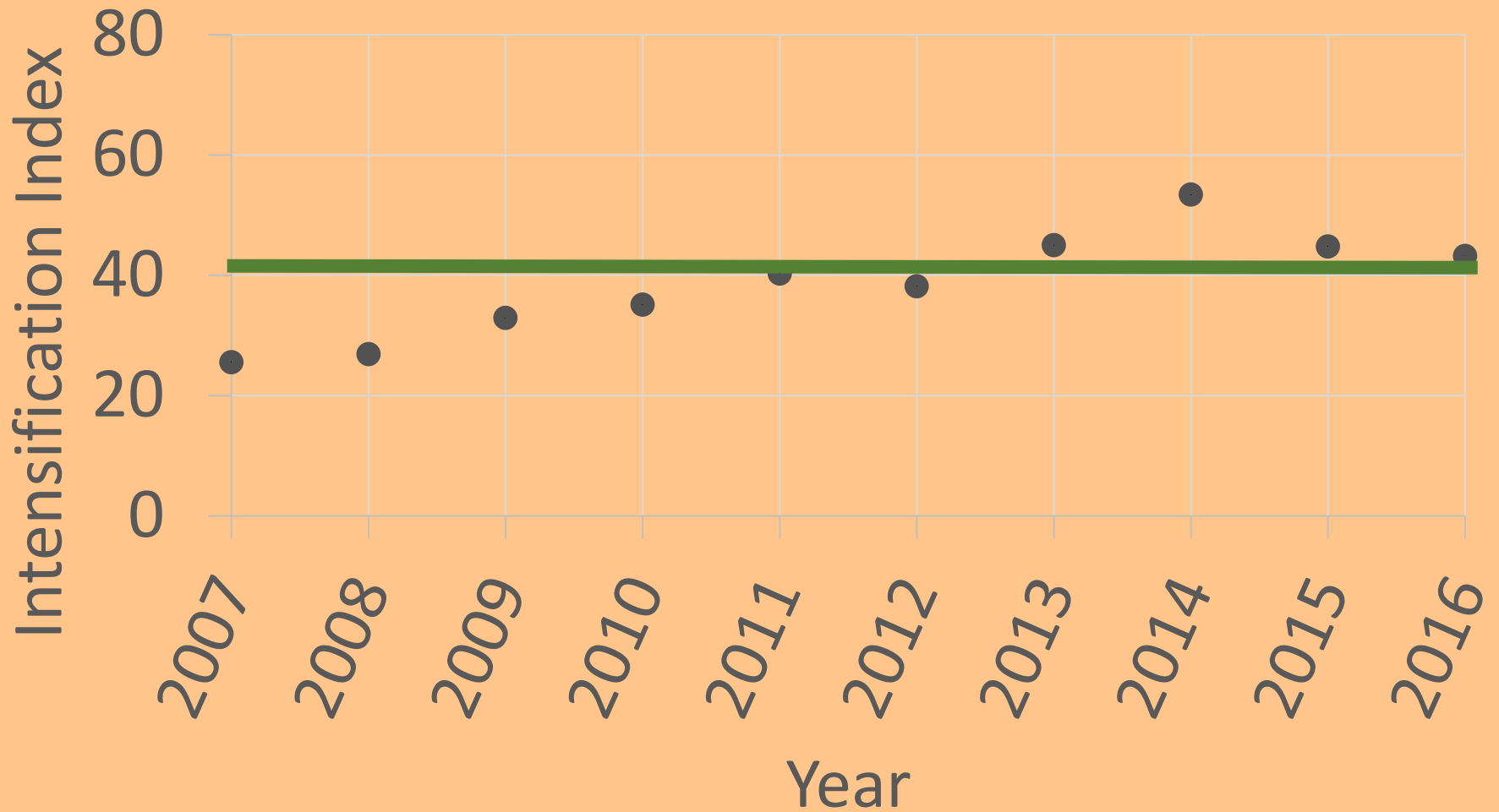
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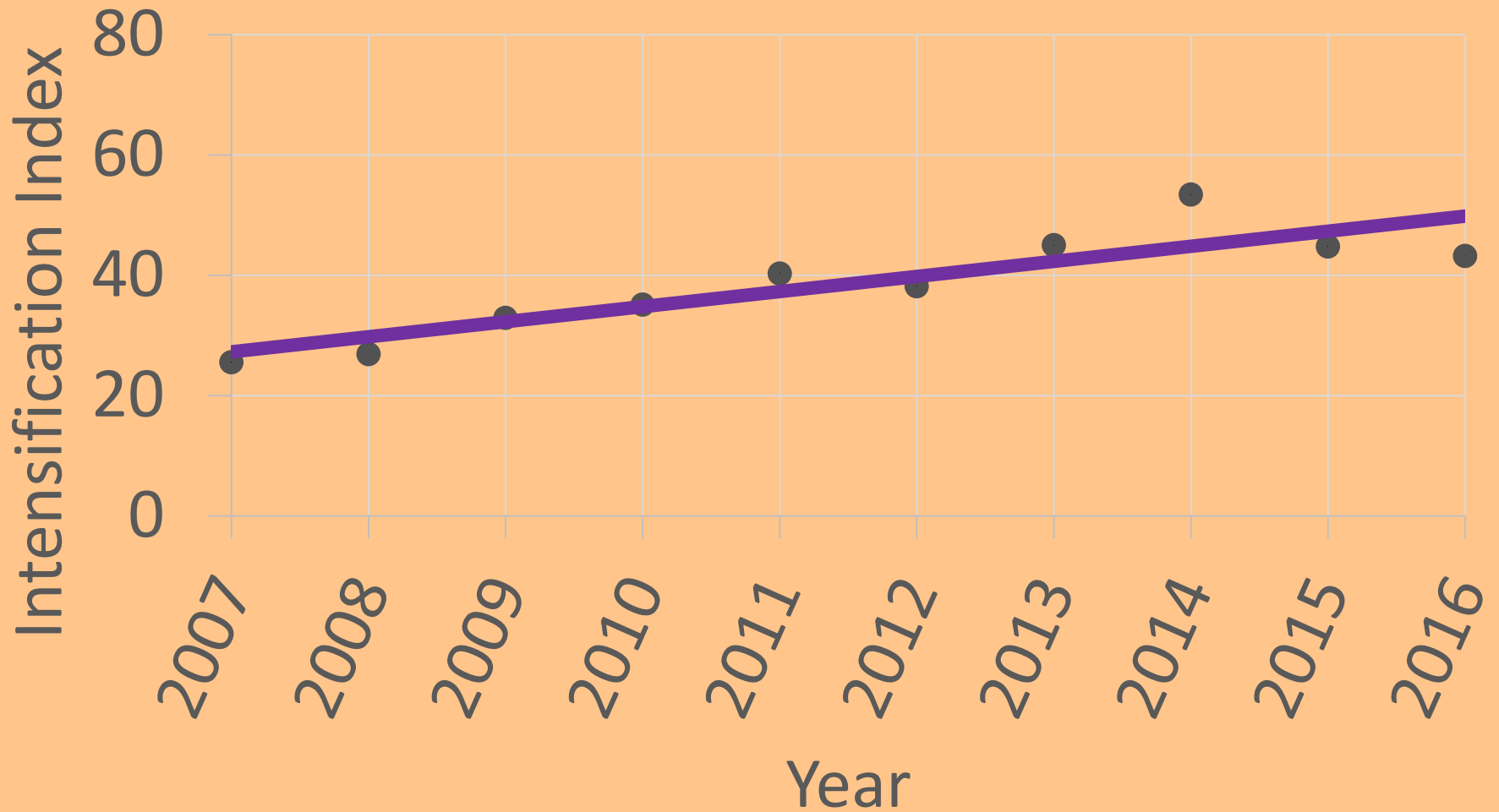




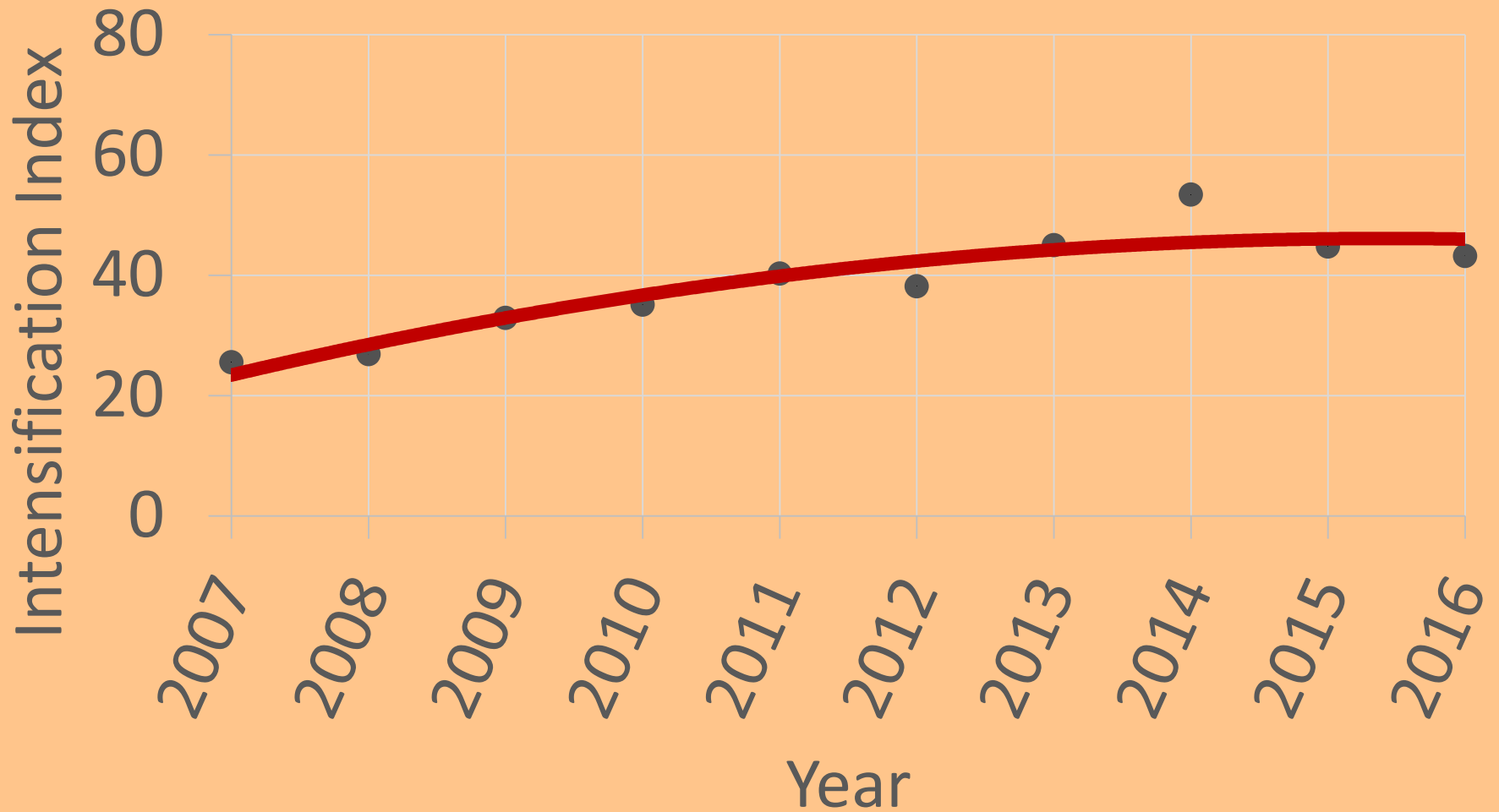
$$Y = a + b * \text{year} + c * \text{year}^2$$

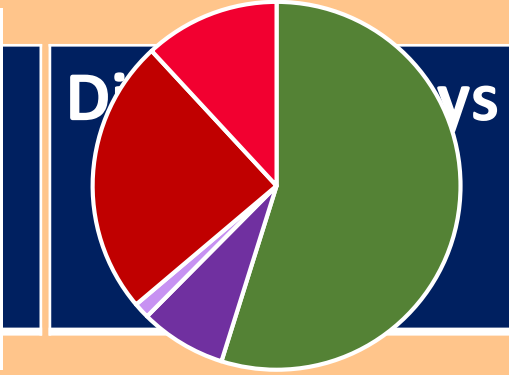
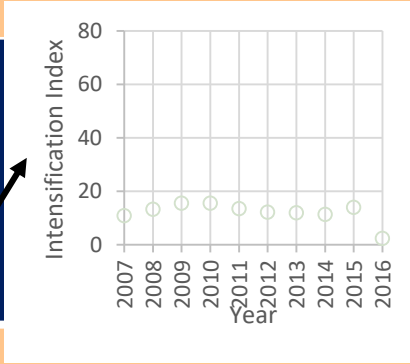
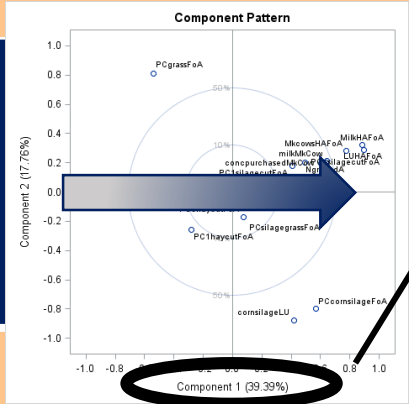


$$Y = a + b * \text{year} + c * \text{year}^2$$



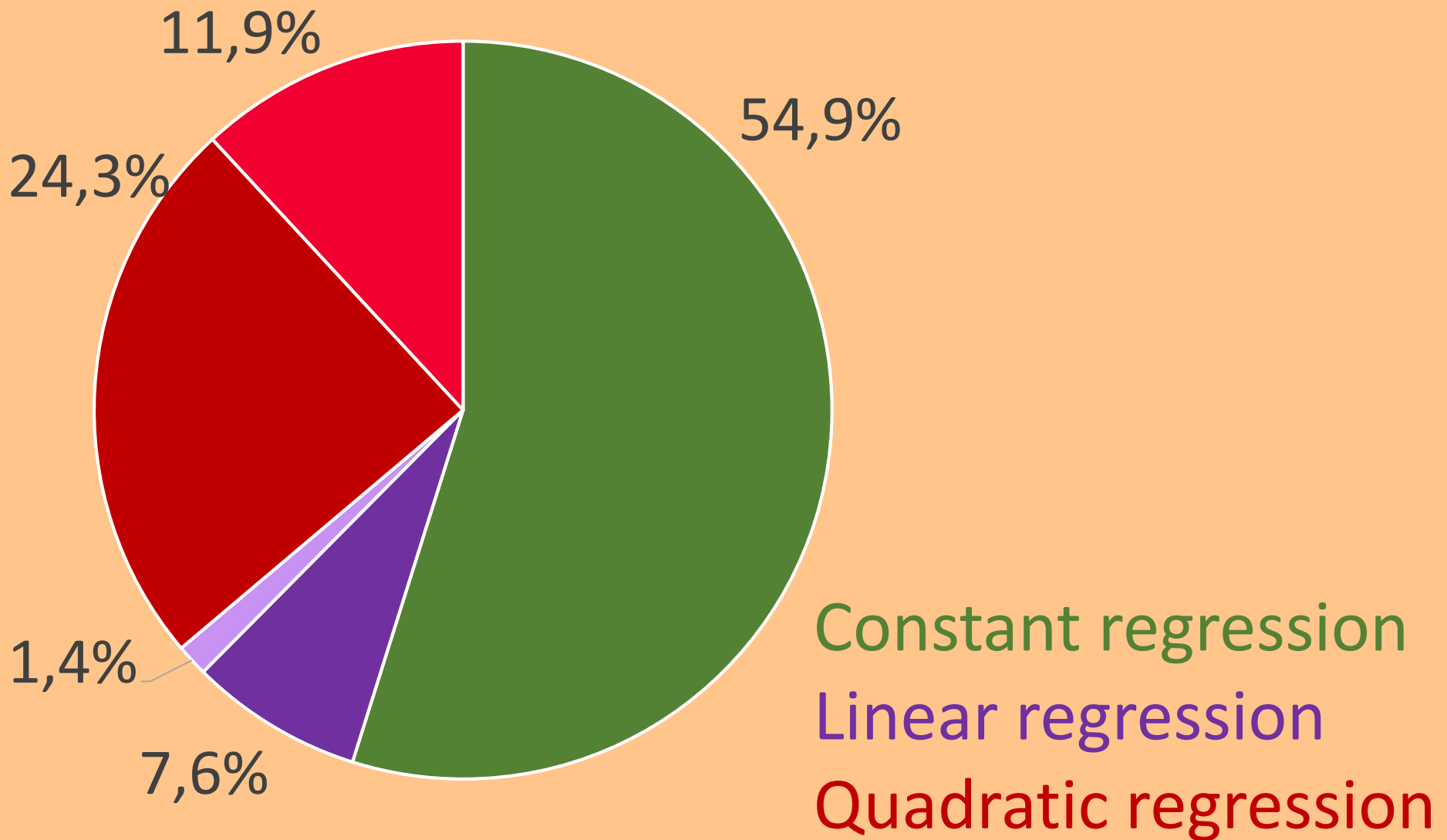
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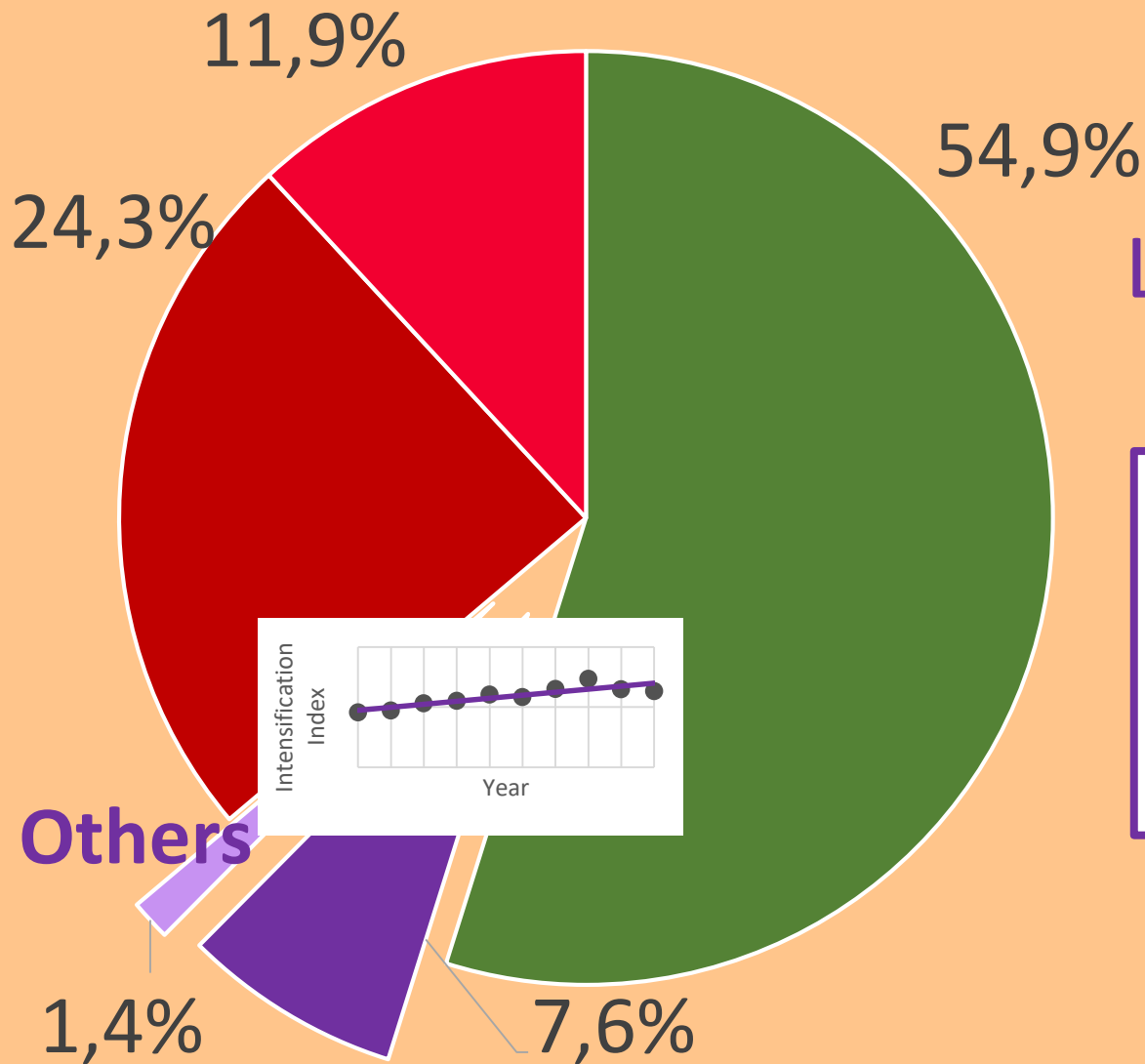


Why?

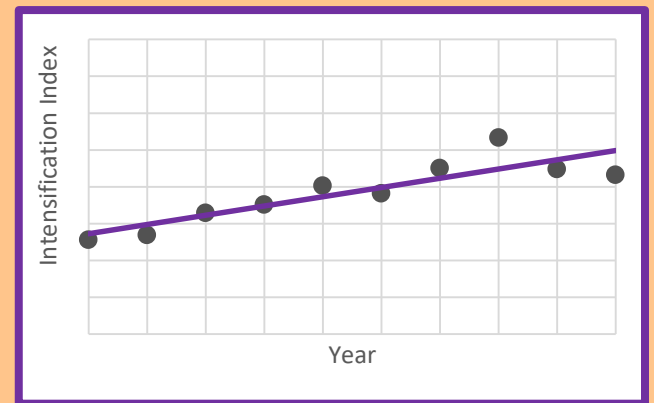
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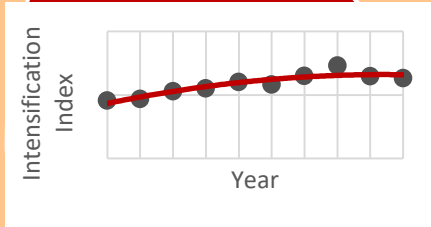
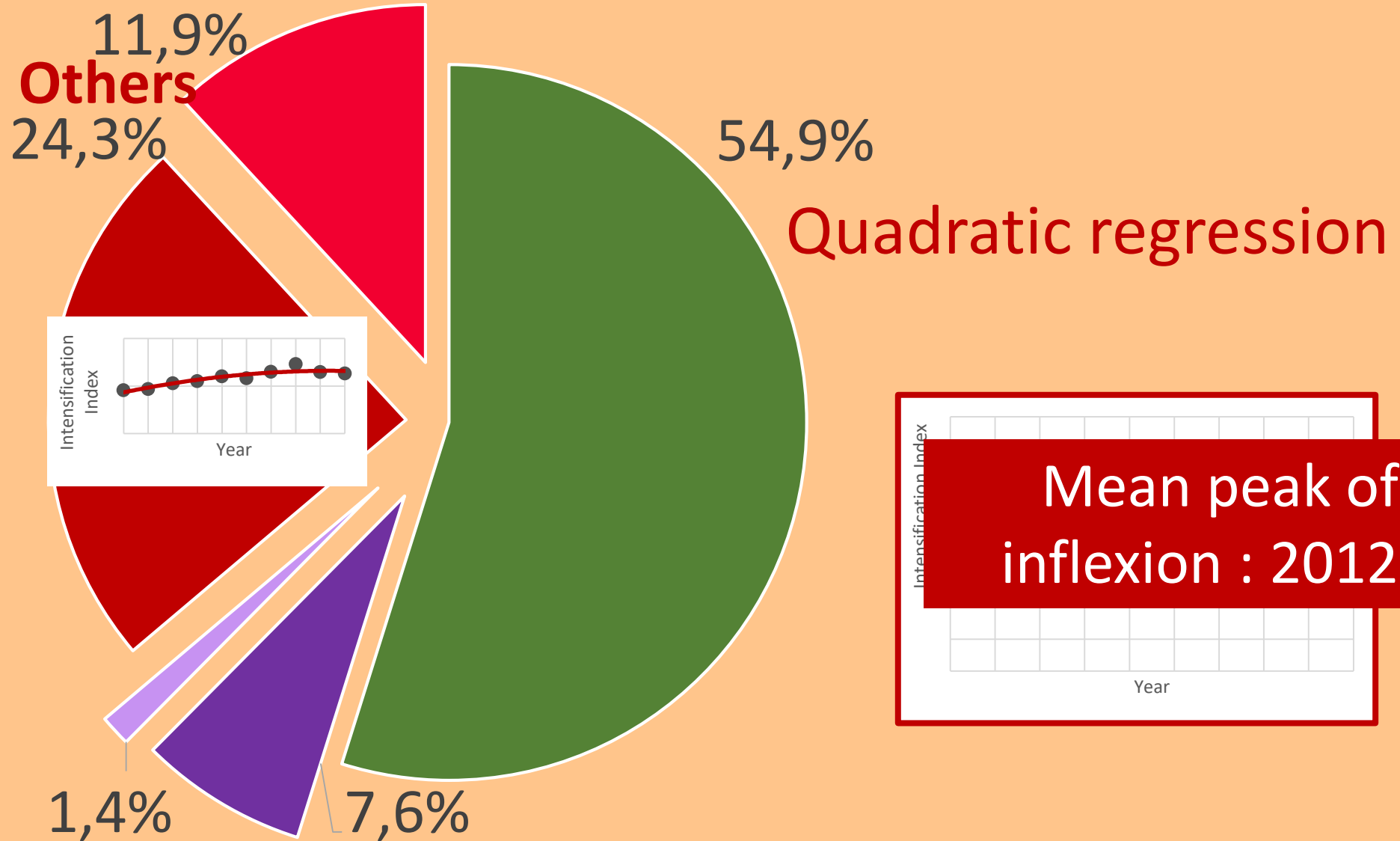
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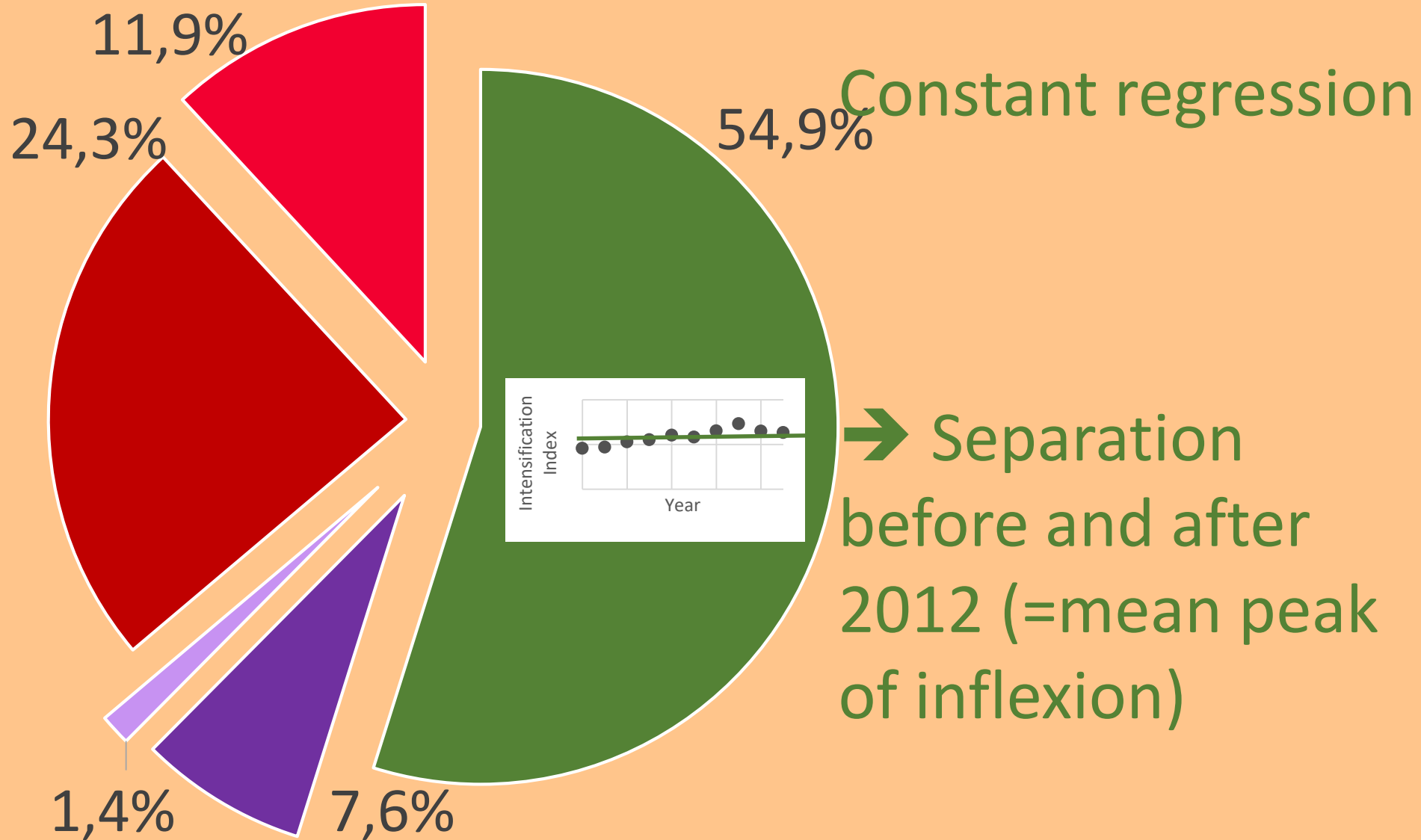
Linear regression



$$Y = a + b * \text{year} + c * \text{year}^2$$



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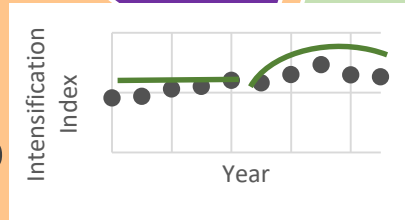
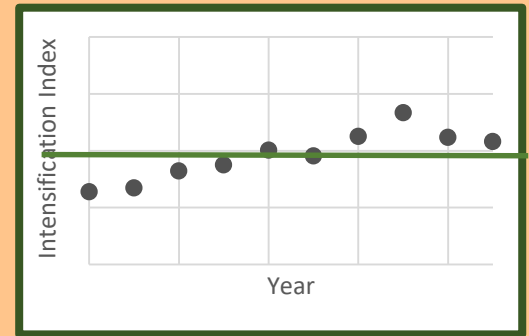
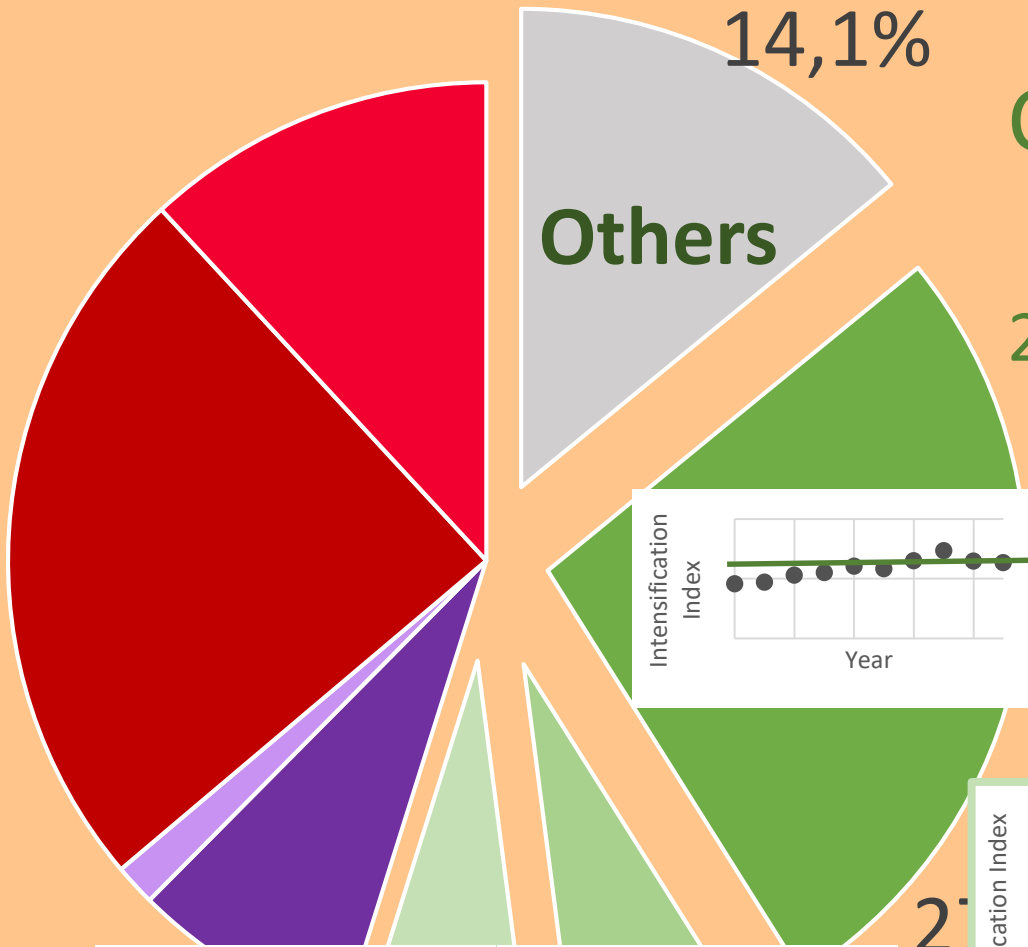


→ Separation before and after 2012 (=mean peak of inflexion)

$$Y = a + b * year + c * year^2$$

Constant regression

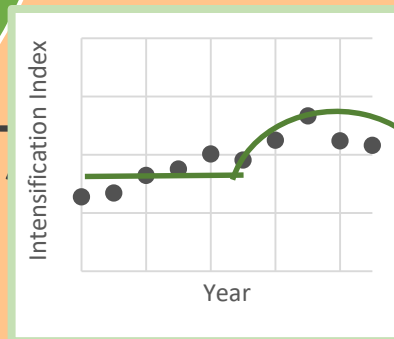
2007 2012/2012 2016



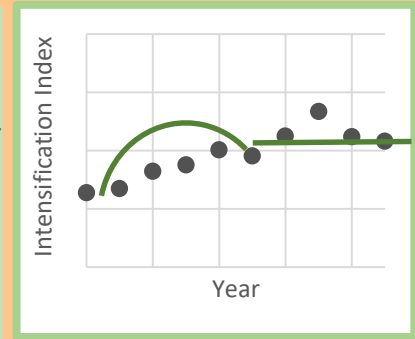
6,9%



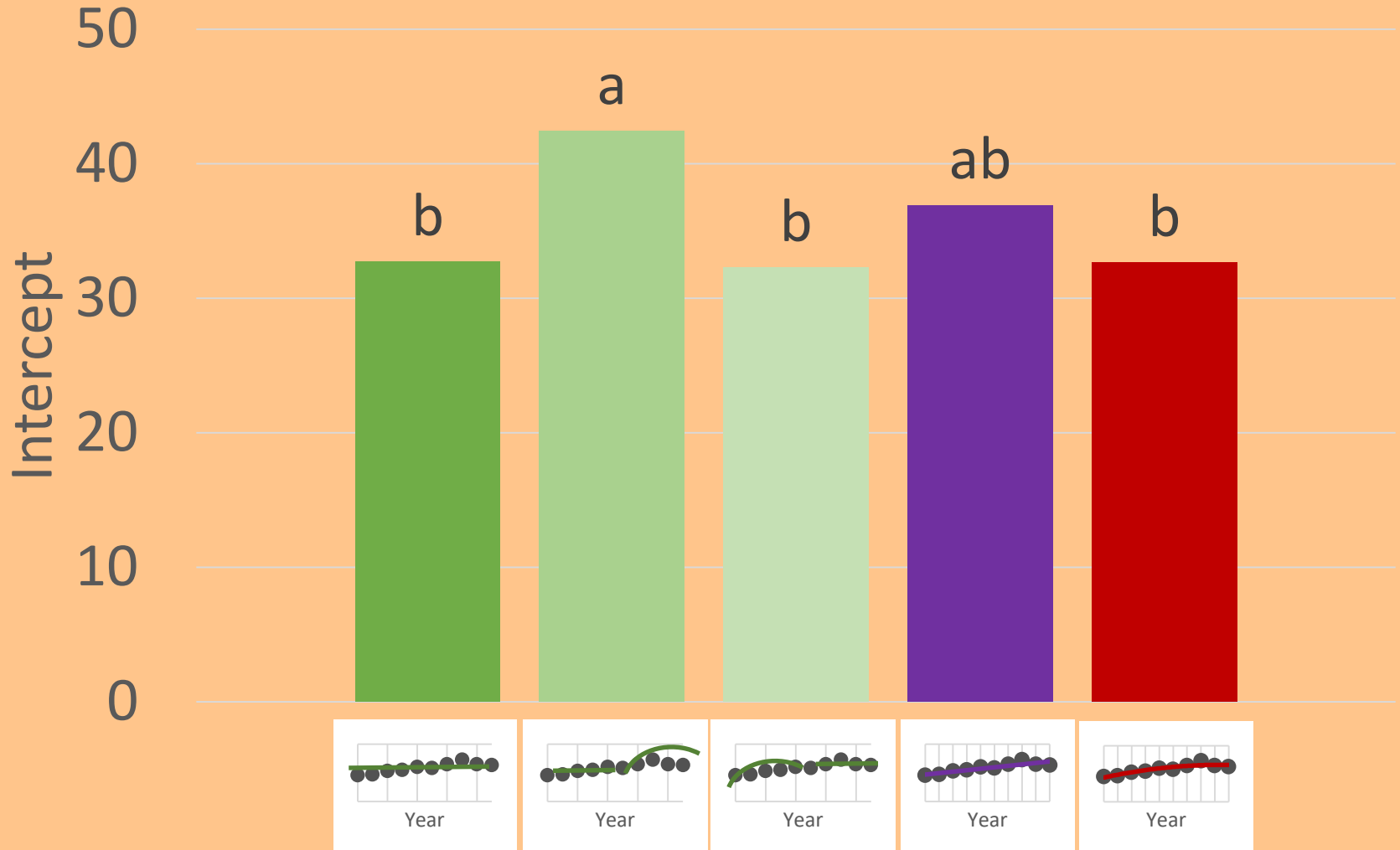
6,

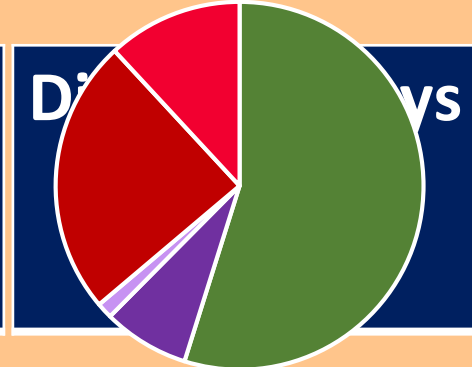
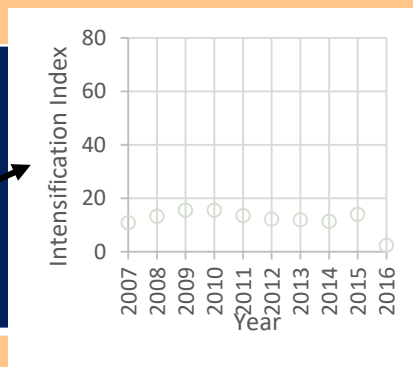
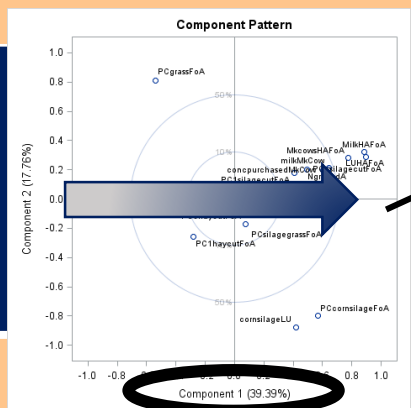


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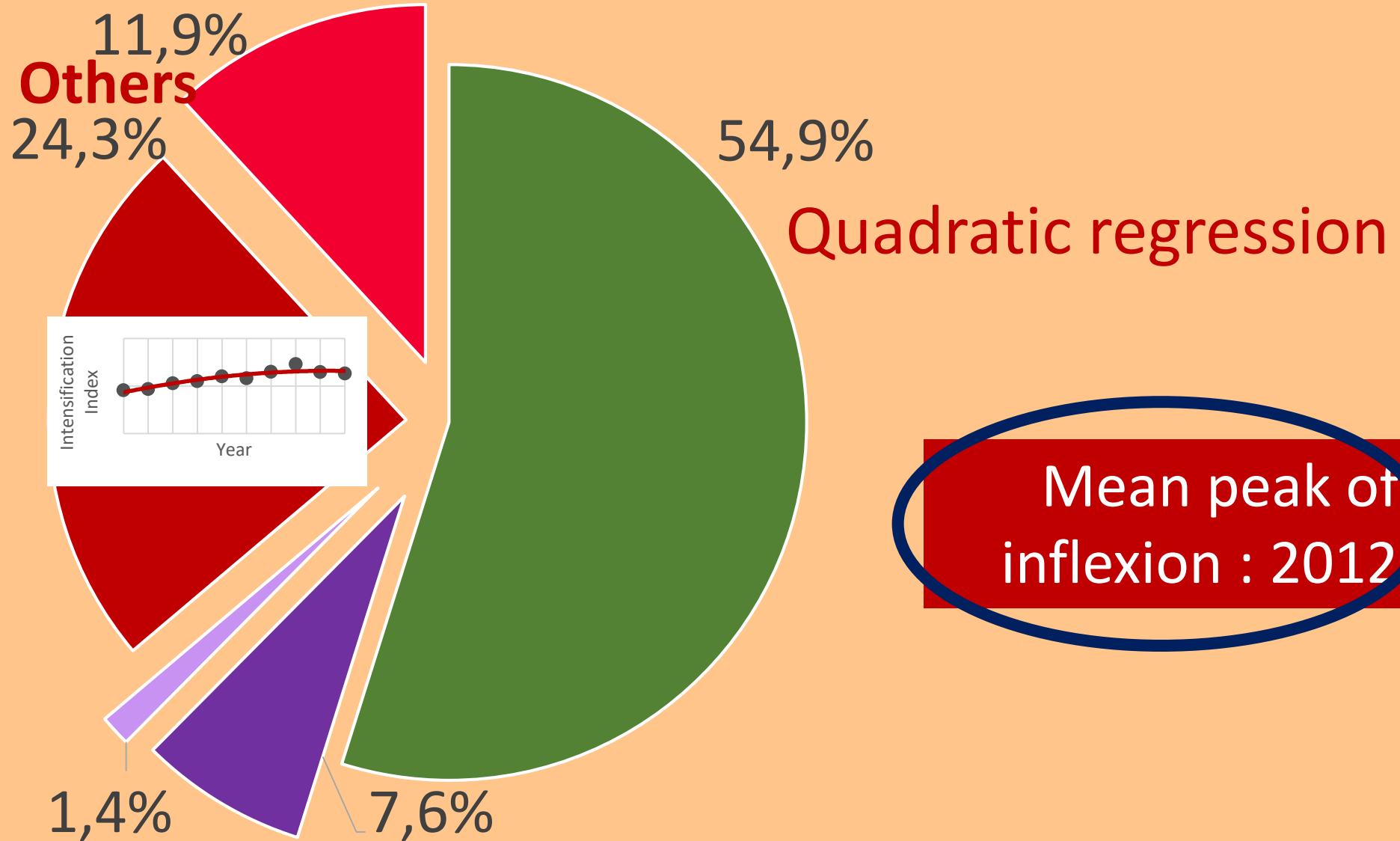
Initial level of intensification in function of pattern



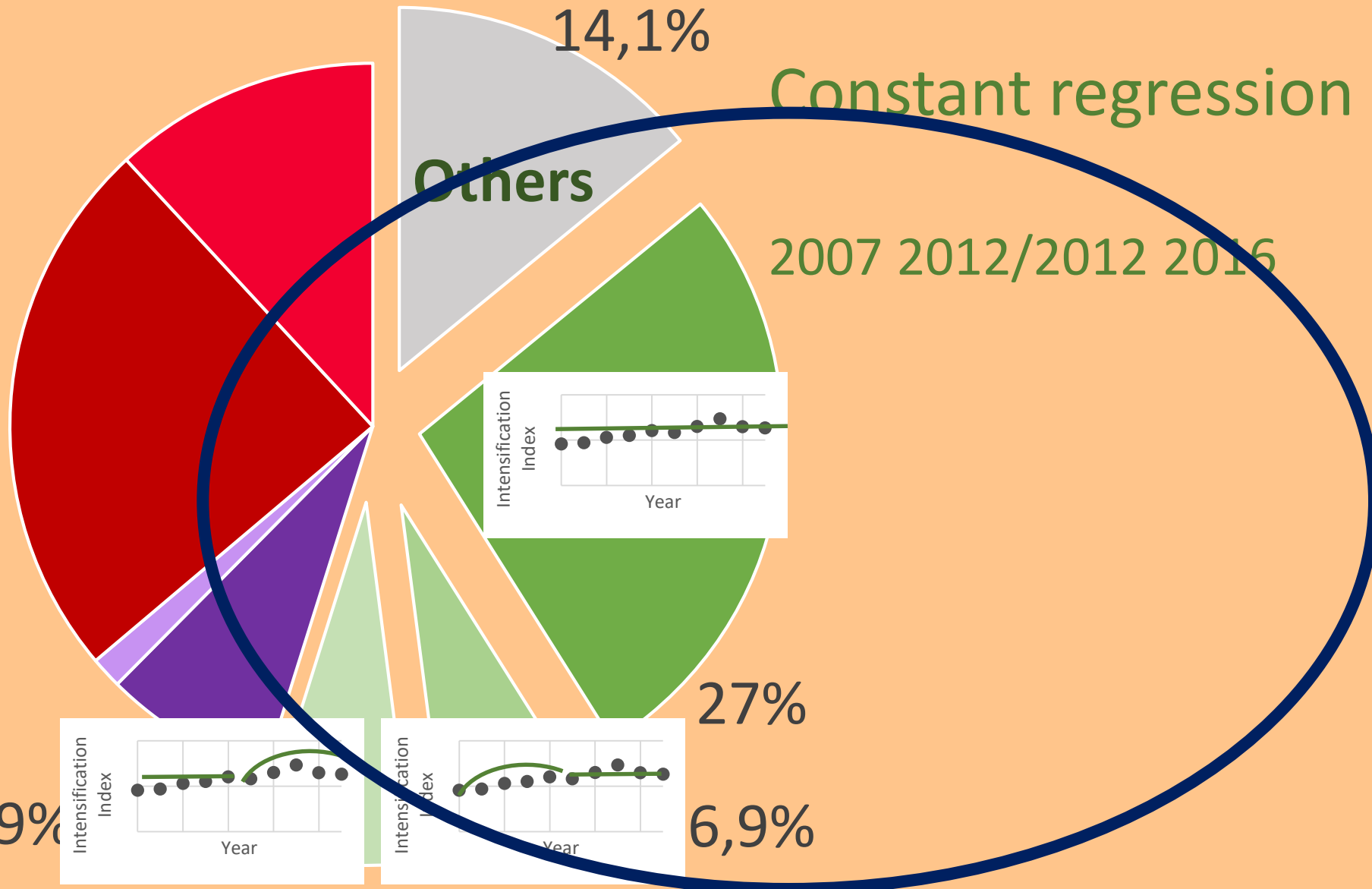


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Initial level of intensification in function of pattern

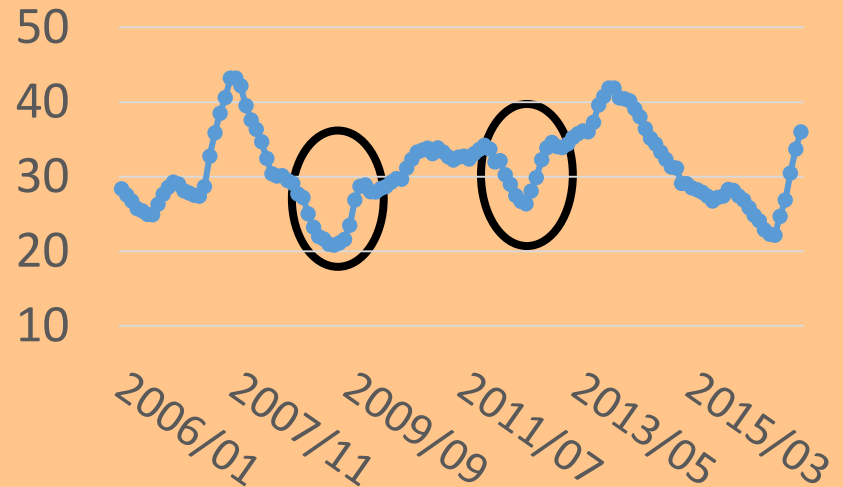


2012 crisis Milk price 2006-2016 (cents)

Milk market observatory, European Union, 2018

= second crisis in 4 years

➔ awareness of volatility



2012 crisis

= second crisis in 4 years

➔ awareness of volatility

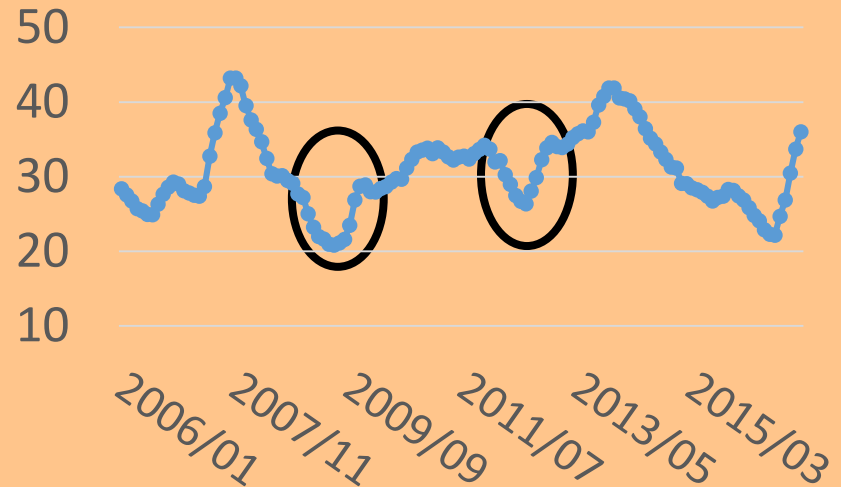
➔ Change of management practices, whose feeding

=> impact on intensification

2012 crisis Milk price 2006-2016 (cents)

Milk market observatory, European Union, 2018

= second crisis in 4 years
➔ awareness of volatility



= Output and **input** crisis

Soybeans Historical Price Chart



Note: Chicago Board Of Trade (CBOT) Soybeans, prices in USD cents per bushel (bu). Daily prices.

2012 crisis

= second crisis in 4 years

➔ awareness of volatility

= Output and **input** crisis

➔ Change of management practices, whose feeding

=> impact on intensification

➔ Less dependance on purchased feed, more self-sufficiency feed system

=> impact on intensification

ACKNOWLEDGMENTS

- Data

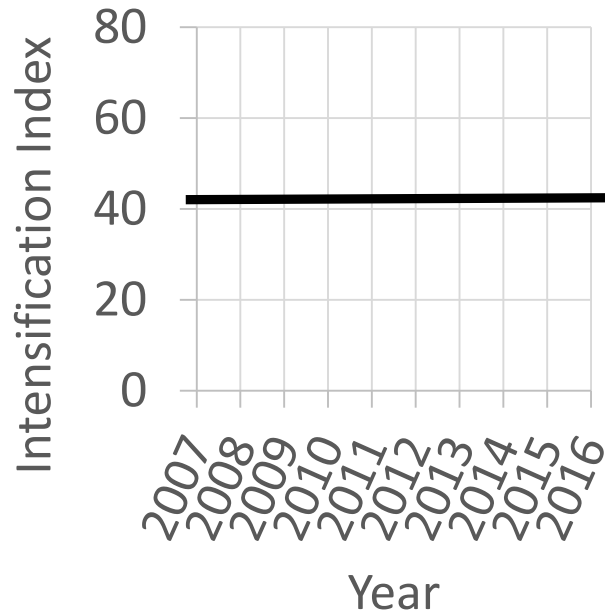


- Financial support

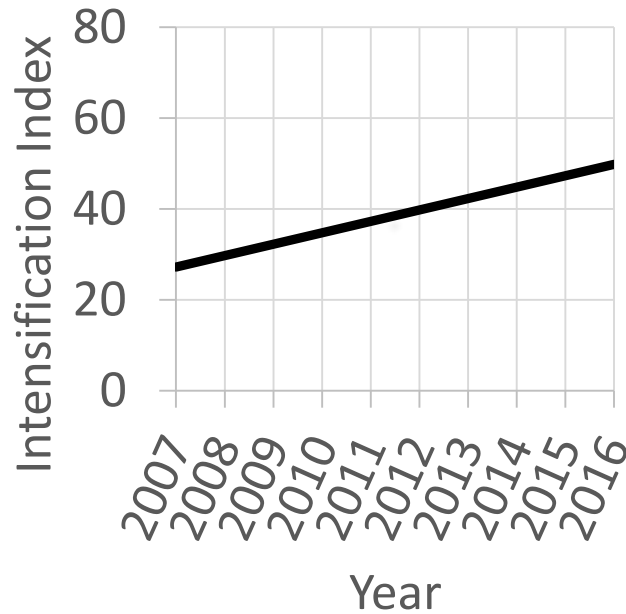


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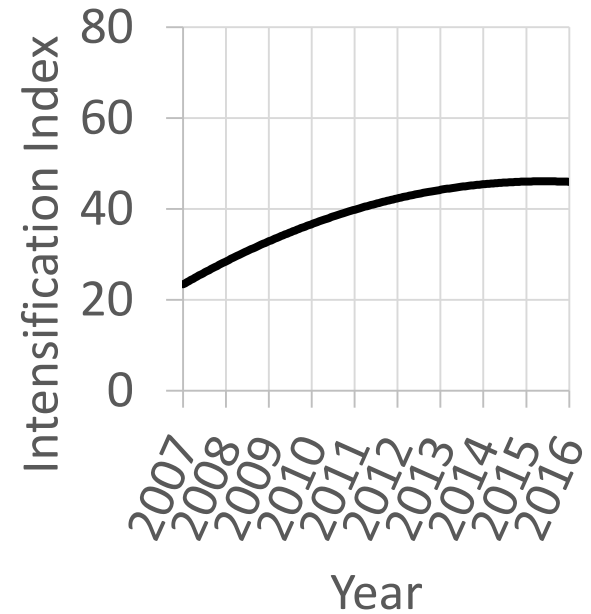
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27%



8%



24%

Effect of 2012 : a **second** crisis in a **short time** and

an **input** crisis