




A Changing Disaster Landscape – The Need for more Resilient Emergency Management Organizations


*Hans De Smet, MSc (Royal Military Academy, Belgium)
Jan Leysen, PhD, Ir (Royal Military Academy, Belgium)
Patrick Lagadec, PhD (Ecole Polytechnique, France)*




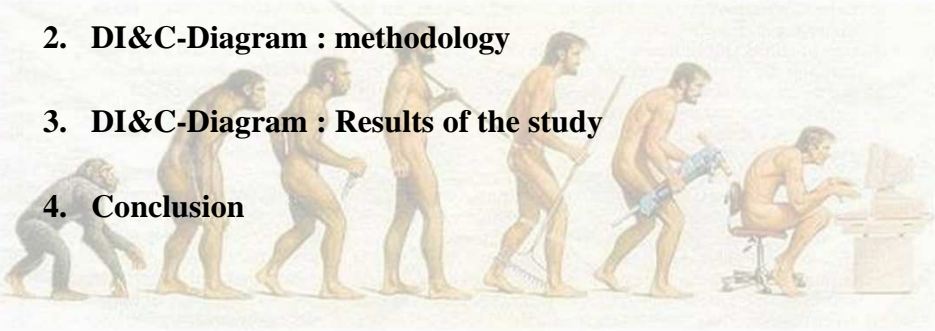
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Outline

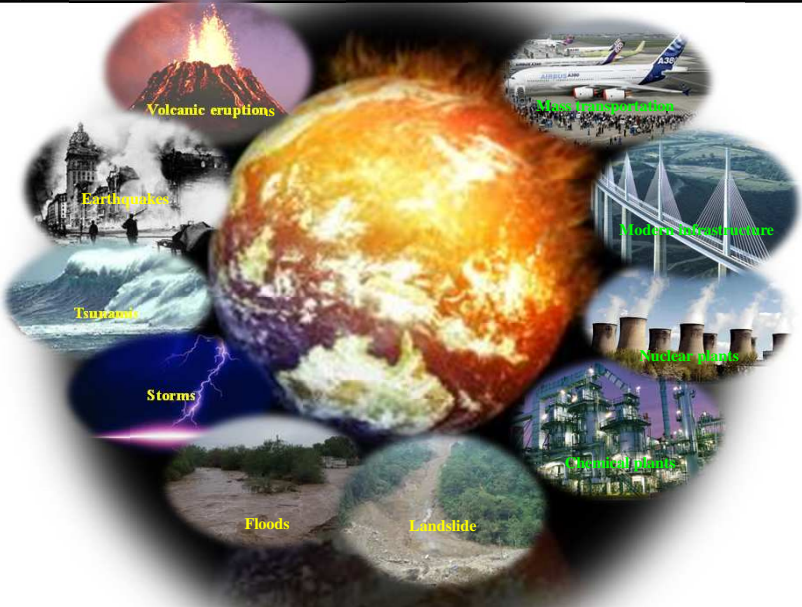


- 1. A shift in the disaster landscape to be discovered**
- 2. DI&C-Diagram : methodology**
- 3. DI&C-Diagram : Results of the study**
- 4. Conclusion**




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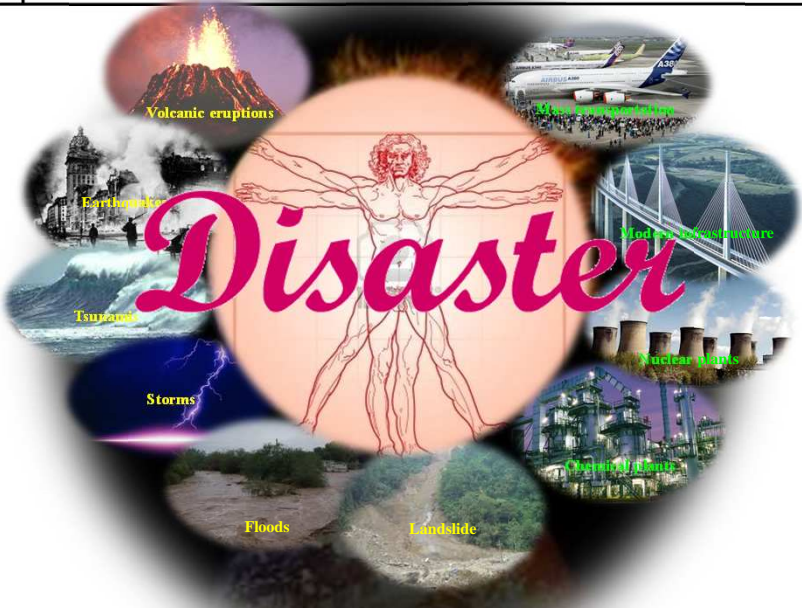
 **A shift in the Disaster Landscape** 



Volcanic eruptions
Earthquakes
Tsunamis
Storms
Floods
Landslides
Mass rail transportation
Modern infrastructure
Nuclear plants
Chemical plants

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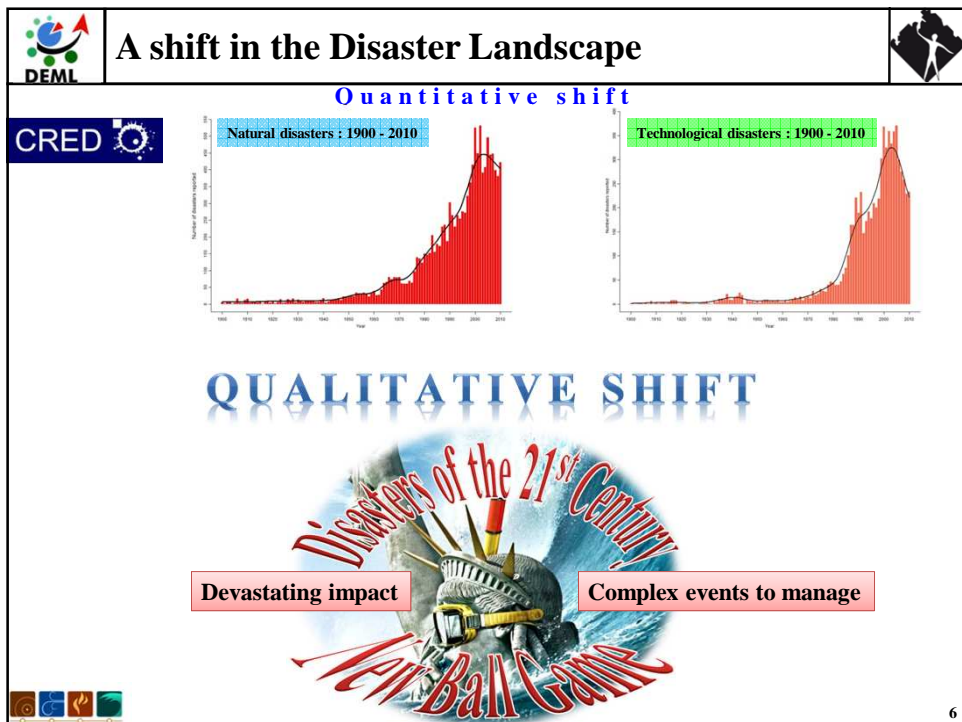
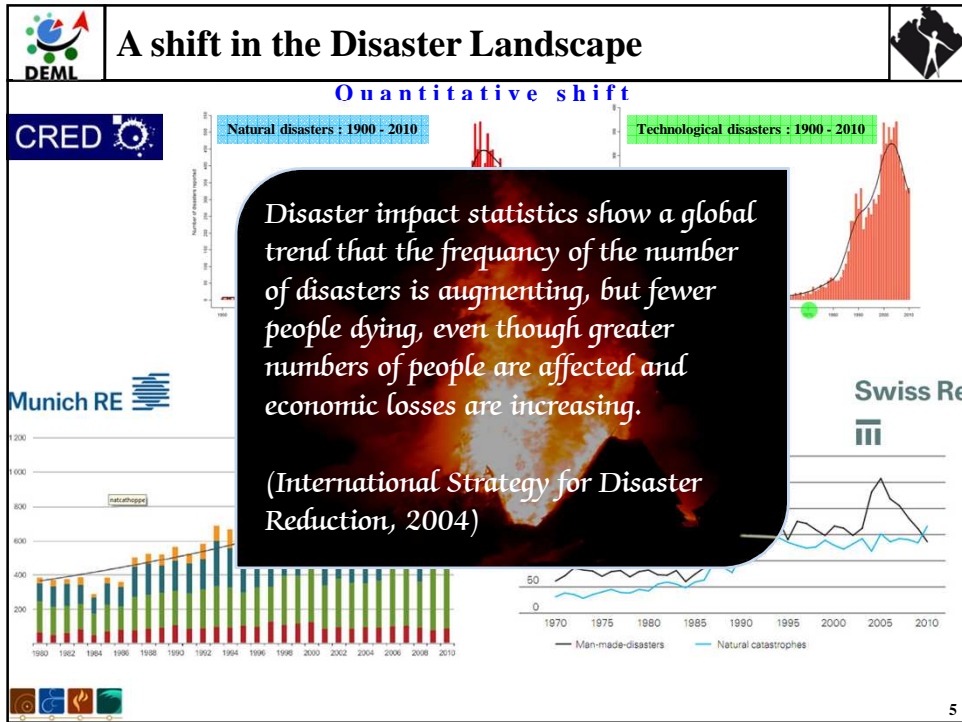
 **A shift in the Disaster Landscape** 



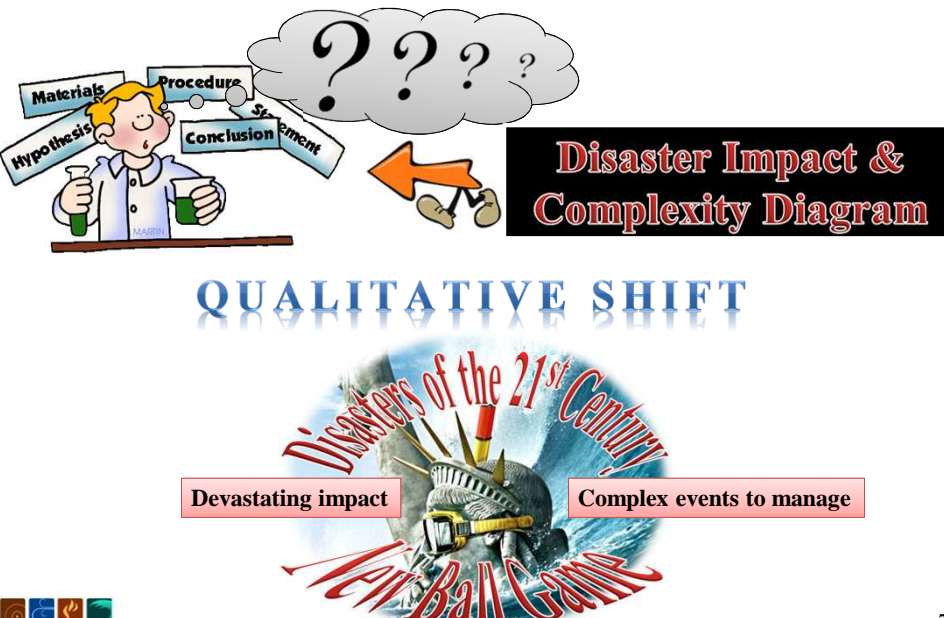







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Disaster

 4




	<h2>A shift in the Disaster Landscape</h2>	
 <p>Disaster Impact & Complexity Diagram</p> <p>QUALITATIVE SHIFT</p> <p><i>Disasters of the 21st Century</i></p> <p><i>New Ball Game</i></p> <p>Devastating impact Complex events to manage</p>		
 7		

	<h2>The DI&C-Diagram - Methodology</h2>	
<p>1. <u>Brainstorm Session</u> Issues → disaster impact & disaster complexity</p>  <p>80 parameters</p>		
 8		





The DI&C-Diagram - Methodology




1. **Brainstorm Session**
Issues → disaster impact & disaster complexity
2. **EFTE-method** (*Estimate, Feedback, Talk & Estimate*)
 - ↳ *Consensus* about relevant issues & *Cluster* similar issues into a single parameter
 - ↳ *Relate* these to **Impact & Complexity** (2 dimensions of the DI&C-Diagram) → **17 appropriate** parameters
 - ↳ *Appropriate scale* for each parameter permitting to calculate a *score* between 0 & 100

The diagram illustrates the process flow. It starts with a 'BRAINSTORM' session where 80 parameters are identified. These are then processed through the EFTE method to reduce them to 17 appropriate parameters. Finally, these parameters are plotted on a 2D coordinate system where the vertical axis is DMC (Disaster Management Complexity) with a value of 12, and the horizontal axis is DIC (Disaster Impact Complexity) with a value of 5.


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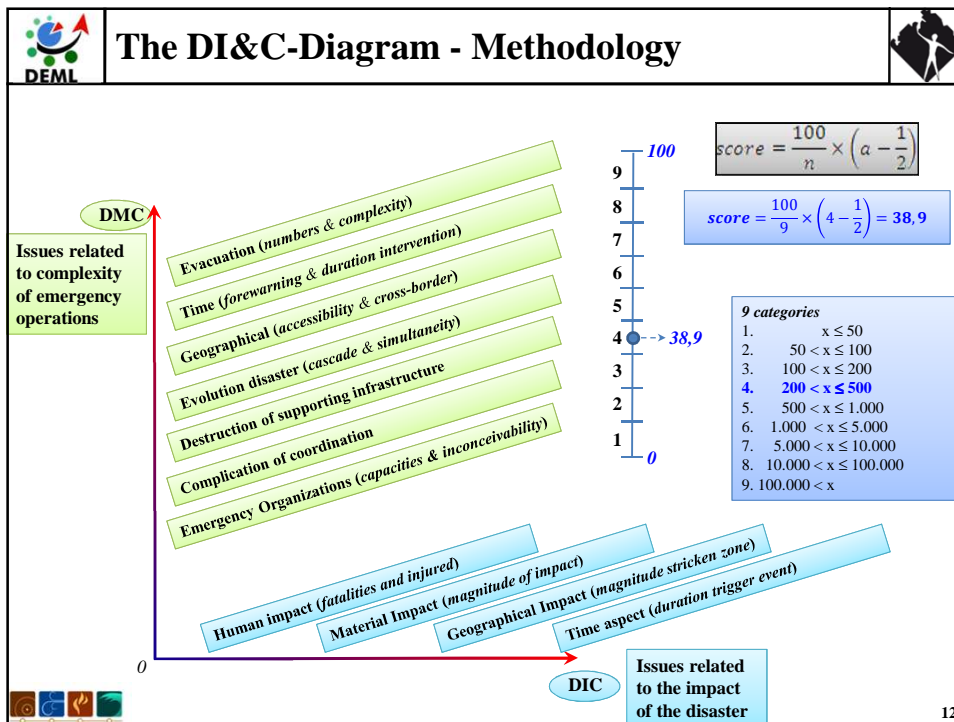
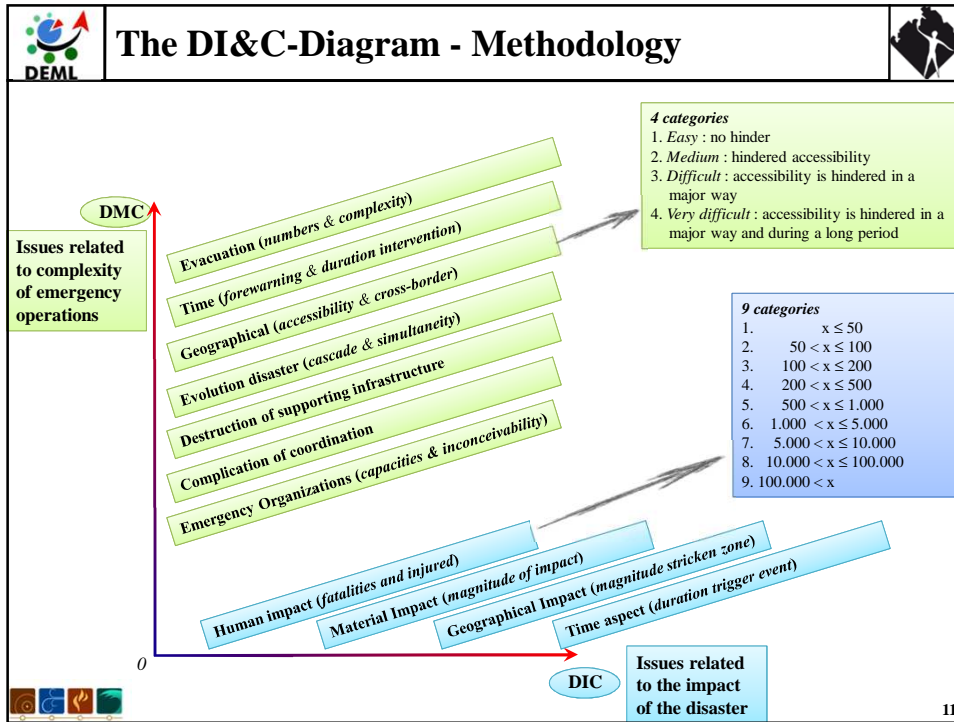
The DI&C-Diagram - Methodology

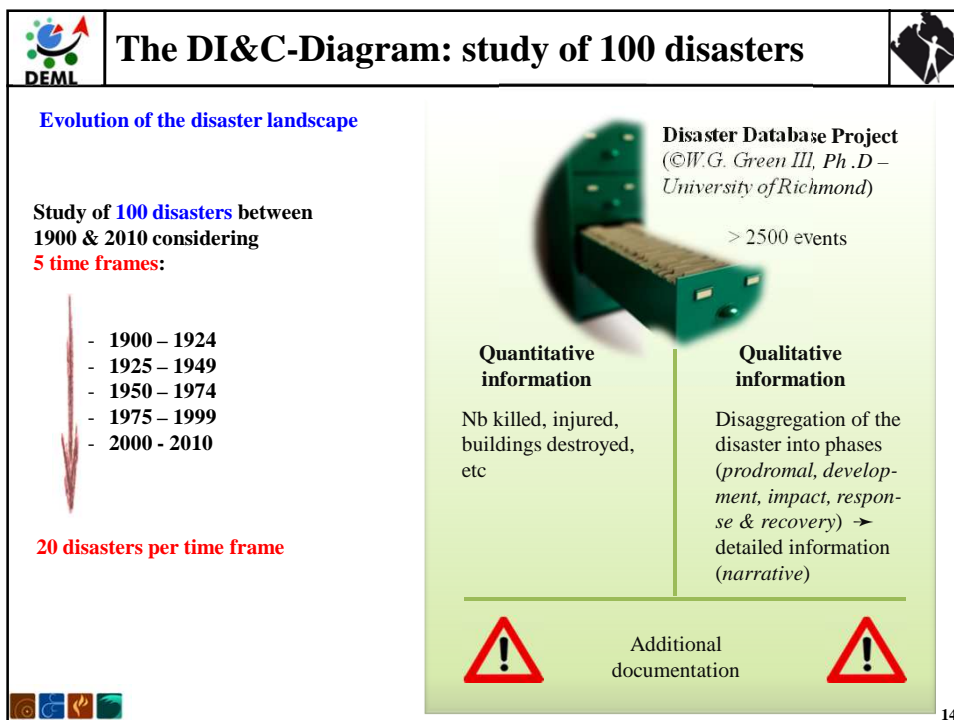
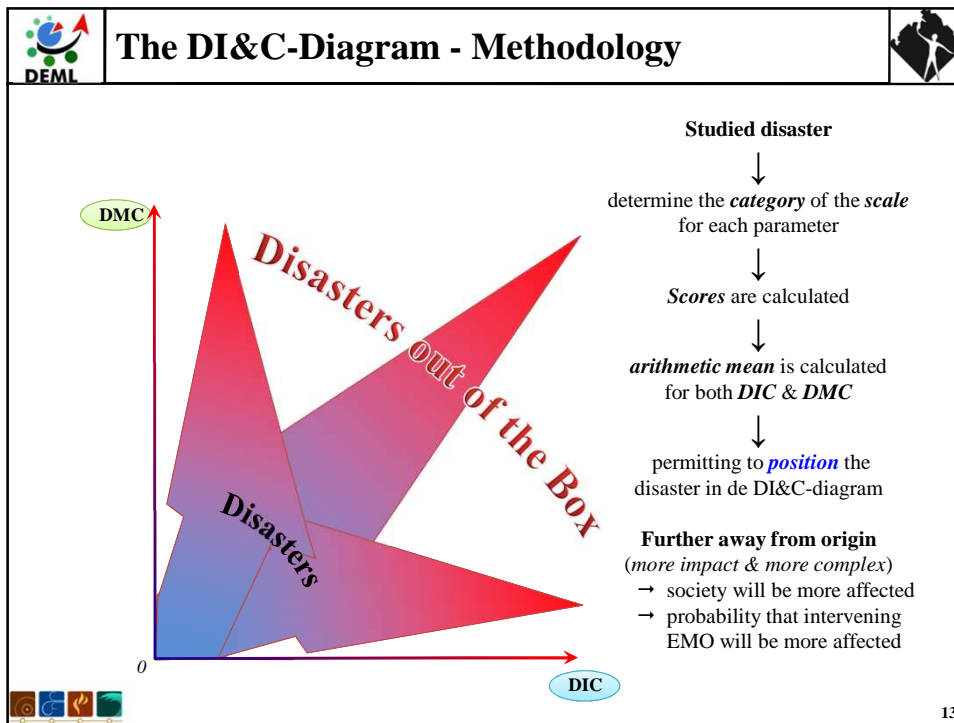



The diagram shows a 2D coordinate system with 'DMC' on the vertical axis and 'DIC' on the horizontal axis. The origin is marked '0'. The vertical axis is labeled 'Issues related to complexity of emergency operations'. The horizontal axis is labeled 'Issues related to the impact of the disaster'. Various issues are plotted as bars at different angles, representing their relative complexity and impact.

- Evacuation (numbers & complexity)
- Time (forewarning & duration intervention)
- Geographical (accessibility & cross-border)
- Evolution disaster (cascade & simultaneity)
- Destruction of supporting infrastructure
- Complication of coordination
- Emergency Organizations (capacities & inconceivability)
- Human impact (fatalities and injured)
- Material Impact (magnitude of destruction)
- Geographical Impact (magnitude stricken zone)
- Time aspect (duration trigger event)



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The DI&C-Diagram: study of 100 disasters




Remark : statistical problems in the study of disasters







The quality of databases can only be as good as the reporting systems that feed them

- ☞
Lack of standardized collection methodologies & definitions
- ☞
Rationale behind data gathering (unreferenced, socially constructed)




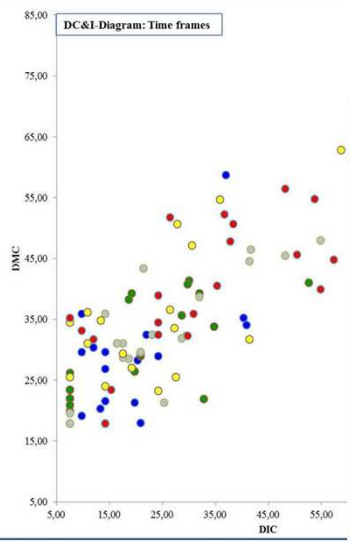
- ☞
Figures should be regarded as **indicative**.
- ☞
Relative changes and trends can be more useful to look at than absolute, isolated figures

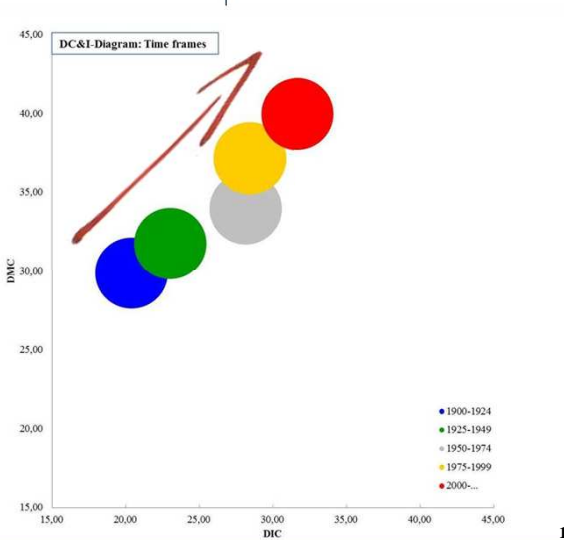

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The results








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