



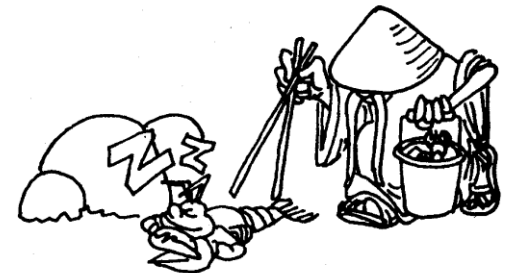
IMPACTO Y BENEFICIOS DEL USO DE COSMIC

Frank Vogelezang
COSMIC President

No hablo Español



Camarón que se duerme





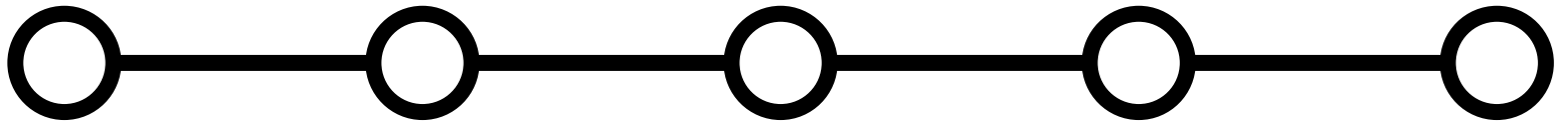
IMPACTS AND BENEFITS OF USING COSMIC

Frank Vogelezang
COSMIC President



Agenda

- COSMIC
 - The organization
 - The method
- Impacts of using the COSMIC method
- Benefits of the COSMIC method





COSMIC

The organization



ORGANIZATION



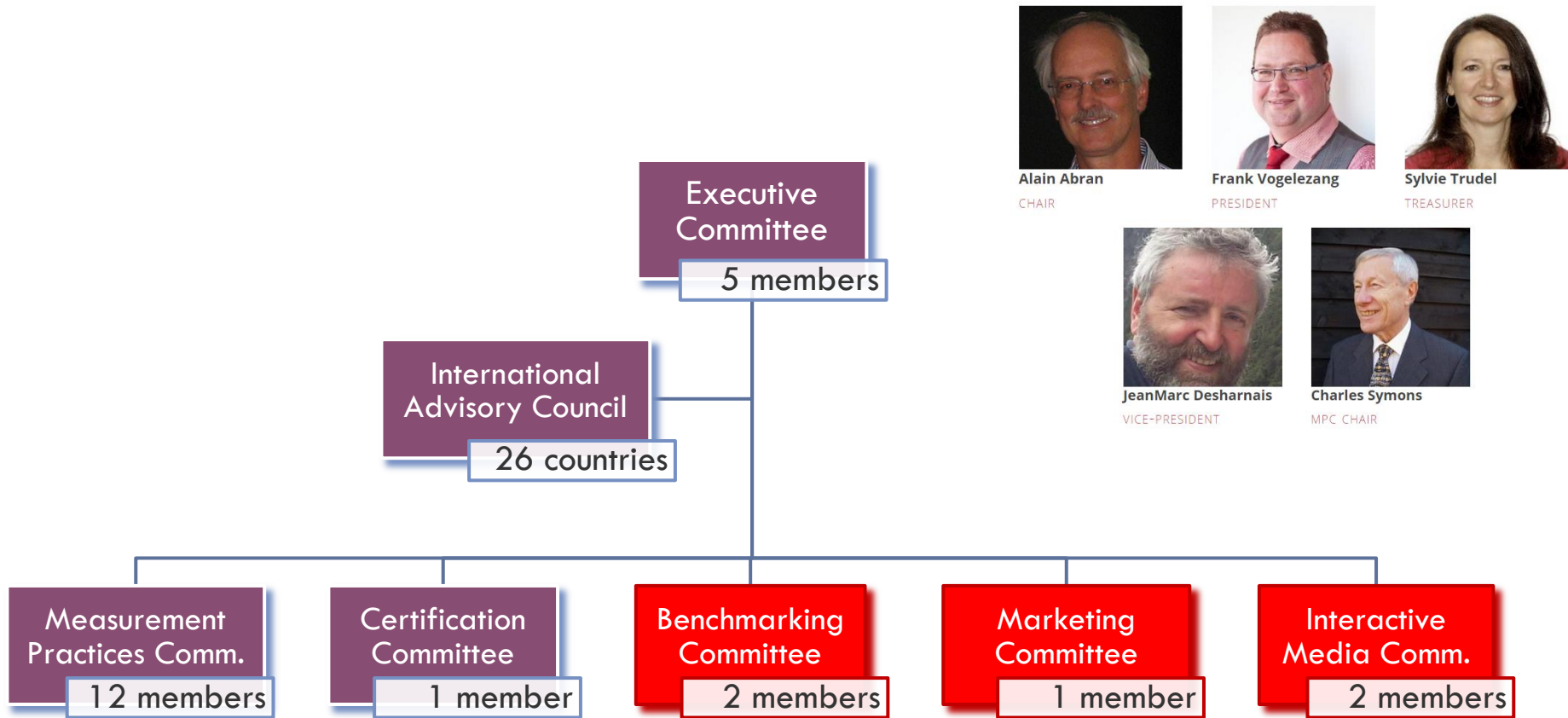
The COSMIC organization

- **Open** – All documentation is free
- **Voluntary** – No-one earns on the method
- **Democratic** – Everyone is heard

OPEN SOURCE



The COSMIC organization





International Advisory Council

26 countries



Only vendor for Training,
Consultancy, Certification
and advice on COSMIC



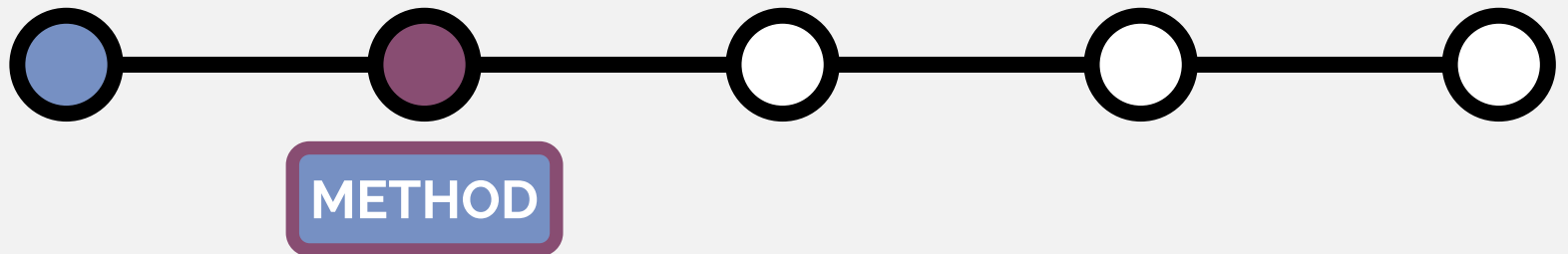
Measurement Practices Comm.

- Maintain the Principles and Rules of the COSMIC method
- Collect, analyse and resolve issues related to the method
- Develop products to support the use of COSMIC
- Approve all final versions of the Measurement Manual, Guidelines and Case Studies
- Ensure these documents conform to the ISO/IEC 19761 international standard



COSMIC

The method





COSMIC – Introduction

- Based on **principles**, not rules
- A clearly defined **measurement unit**
- Not derived from effort
- Not derived from a specific architecture
- **Designed to comply** with ISO 14143



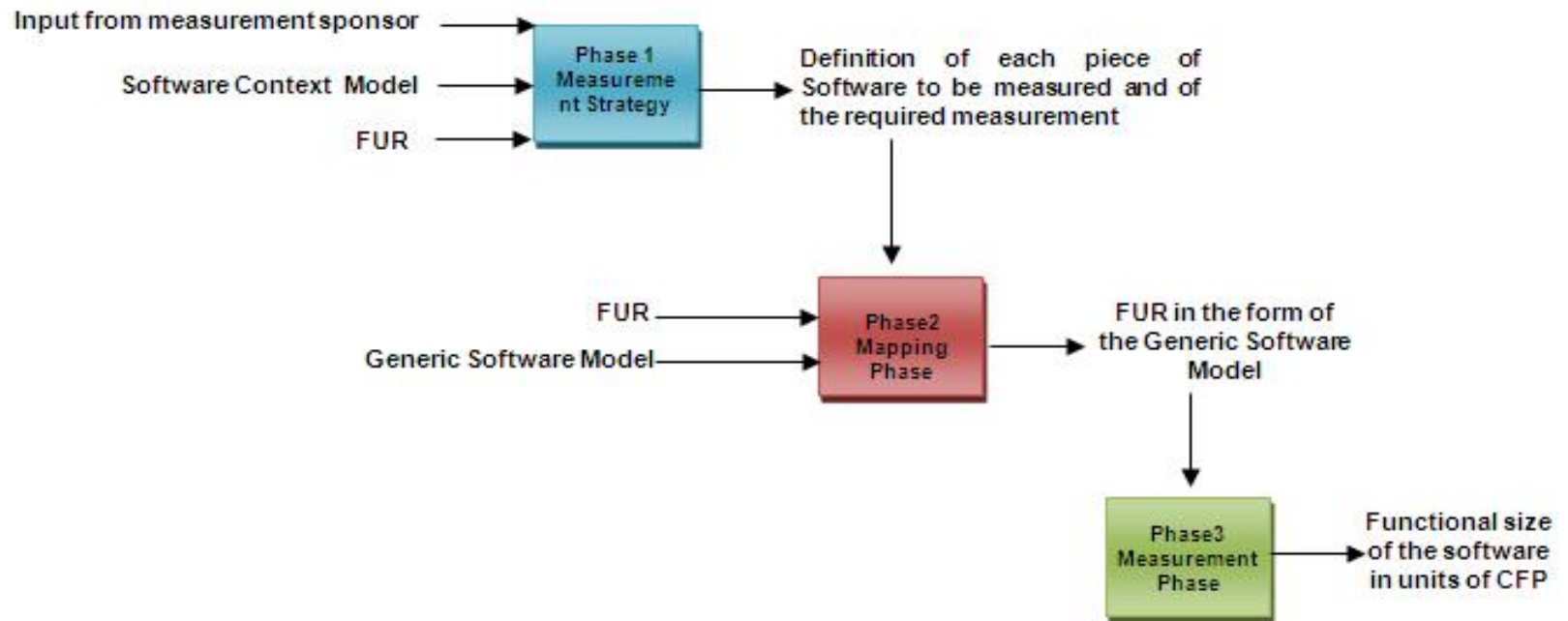


COSMIC – Introduction





The 3 Phases of COSMIC



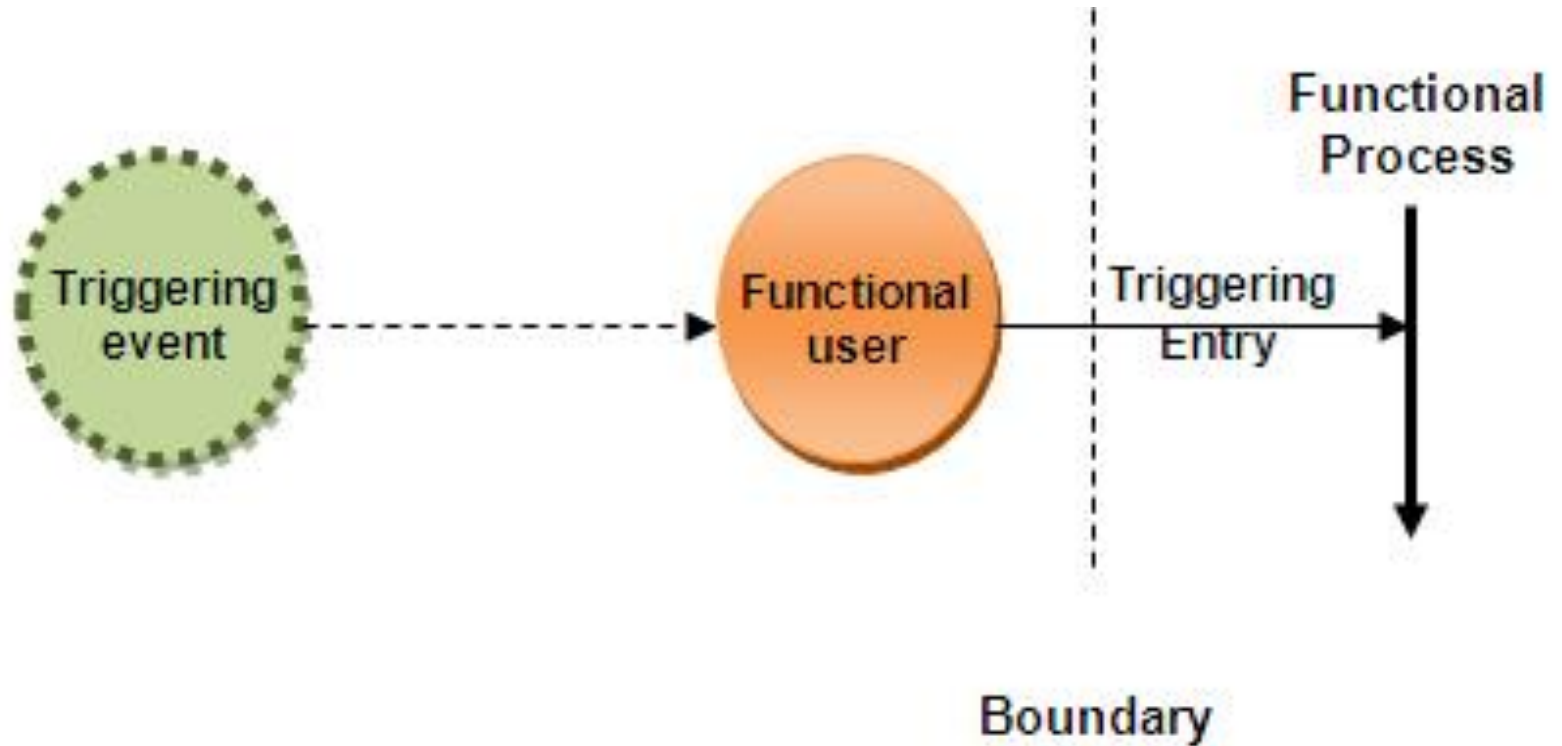
Strategy – Mapping – Measurement



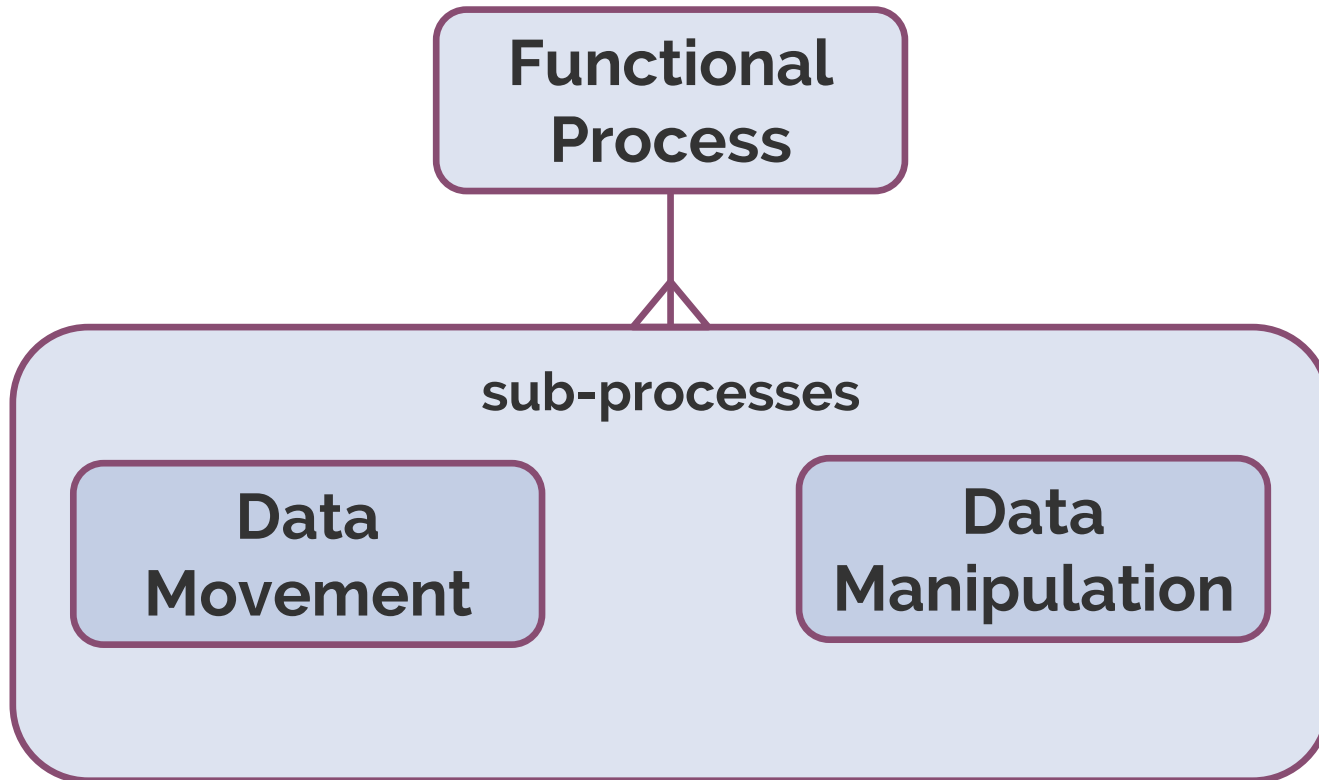
The 4 basic principles

1. Software functionality consists of **Functional Processes**
2. These consist of **sub-processes** that either *move* or *manipulate* data
3. Each **Data Movement** moves a group of data describing a single thing
4. Data manipulation is assumed to be accounted for by the data movement

1. Functional Process



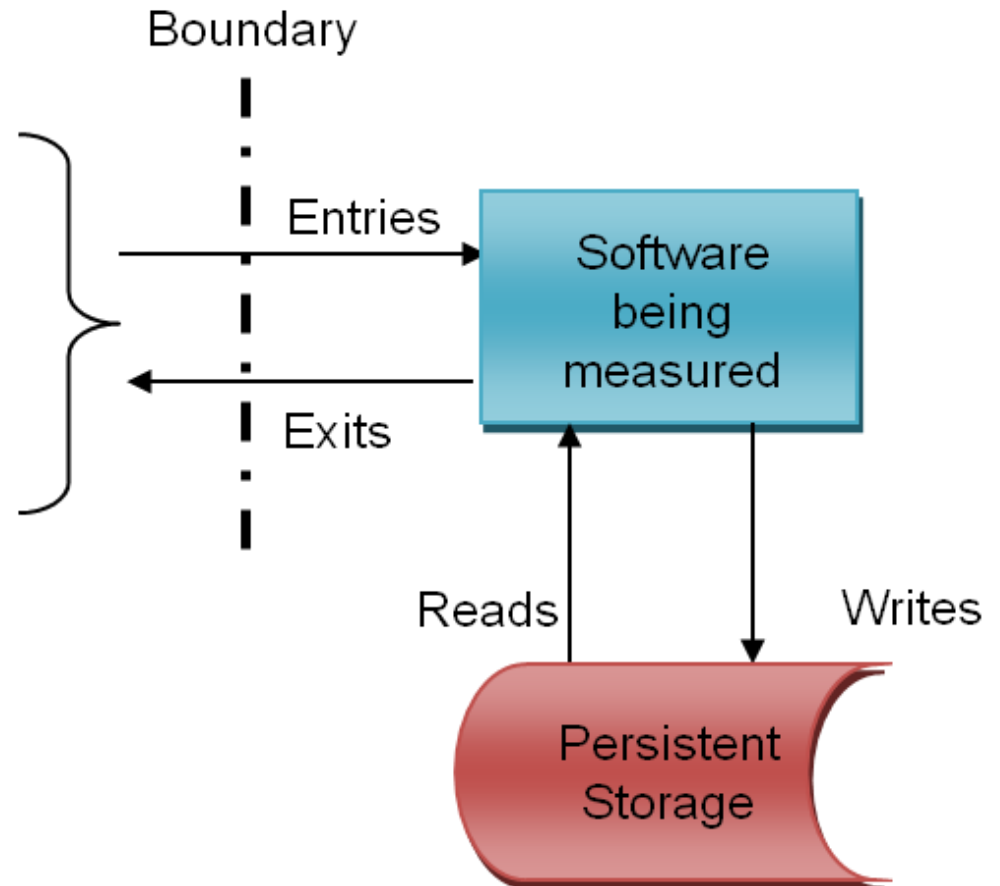
2. Sub-processes



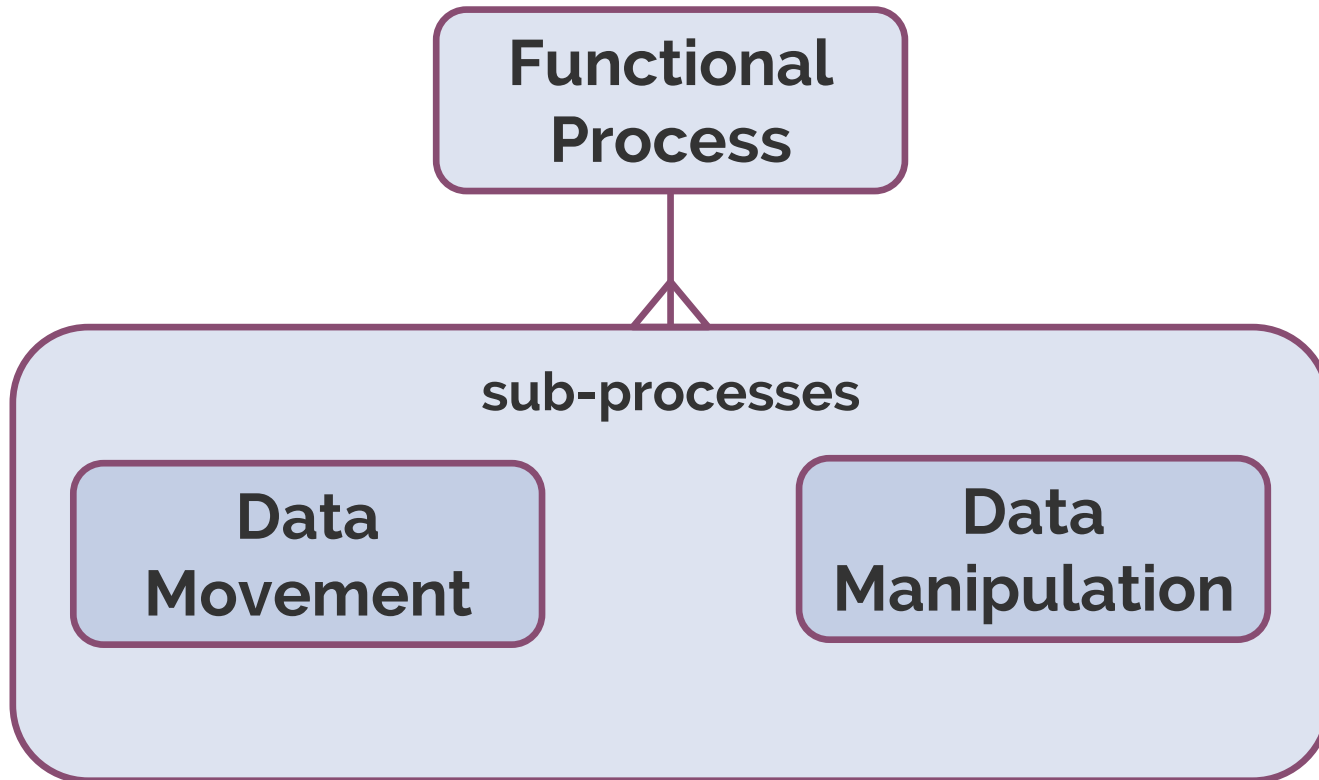
3. Data Movements

Functional Users

- Hardware devices,
- Other software or
- Humans

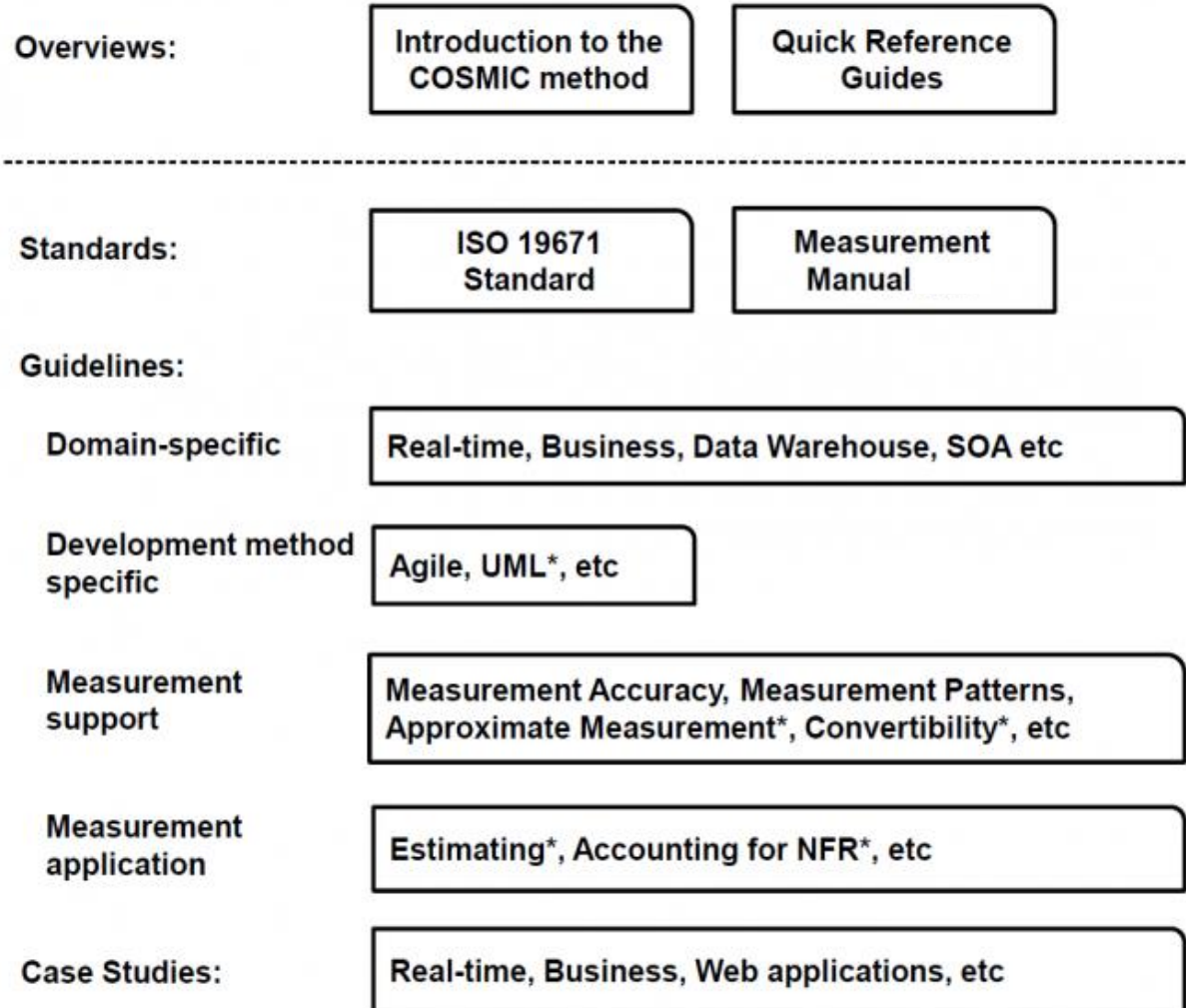


4. Data Manipulation





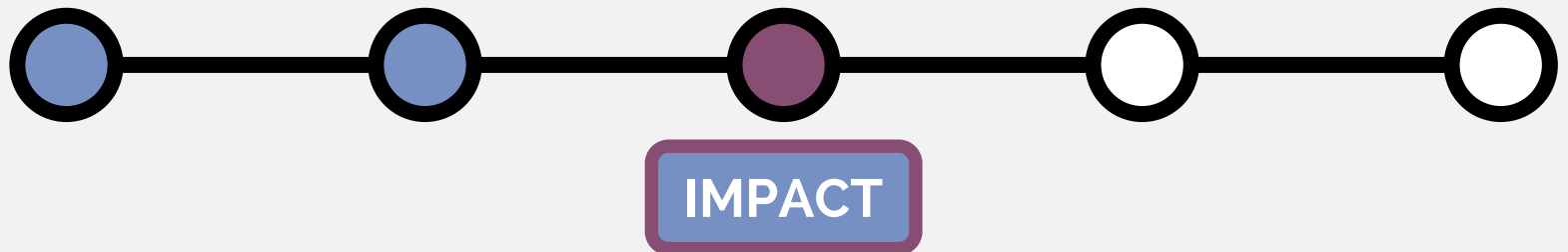
Documentation structure





IMPACTS

of using the COSMIC method





Learn the Method





Build up Size/Effort Data

34.76 M

500,000
bricks

4 days

6 people



May 25, 2014
Budapest
legotorony.hu



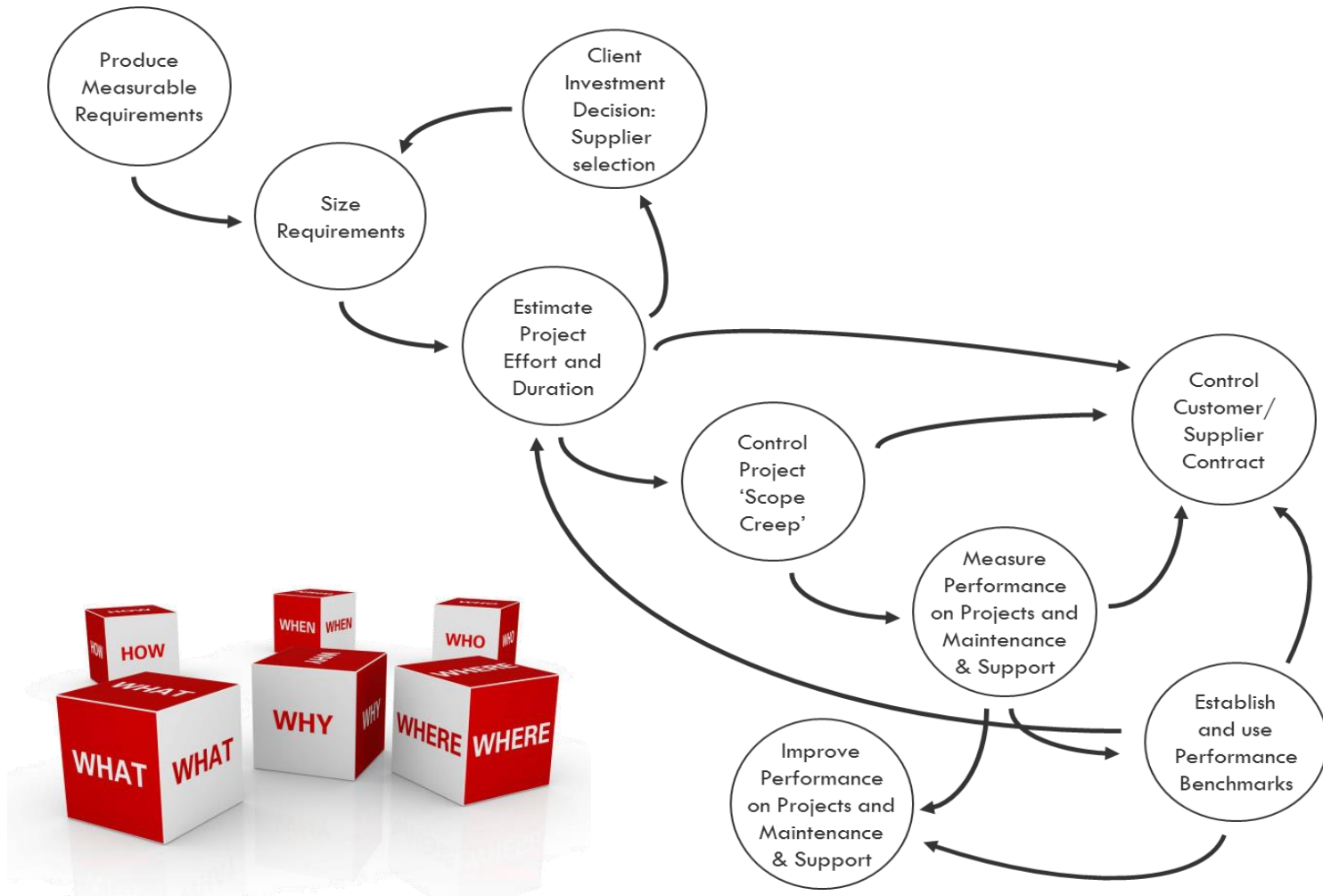


Culture Change





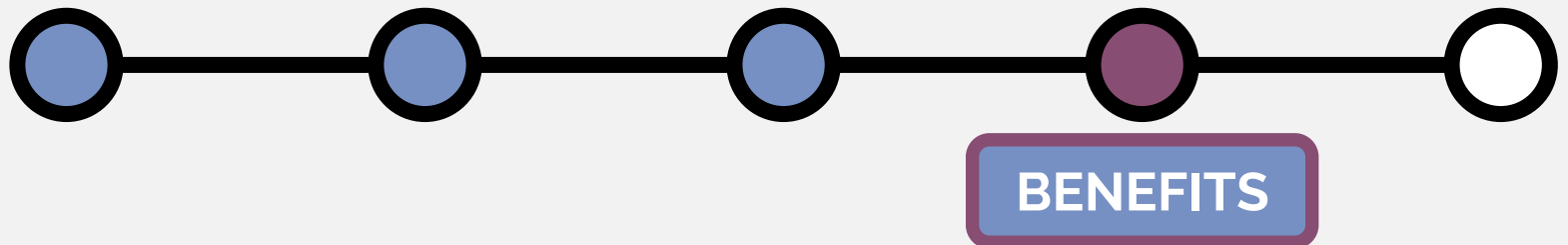
A taste for more





BENEFITS

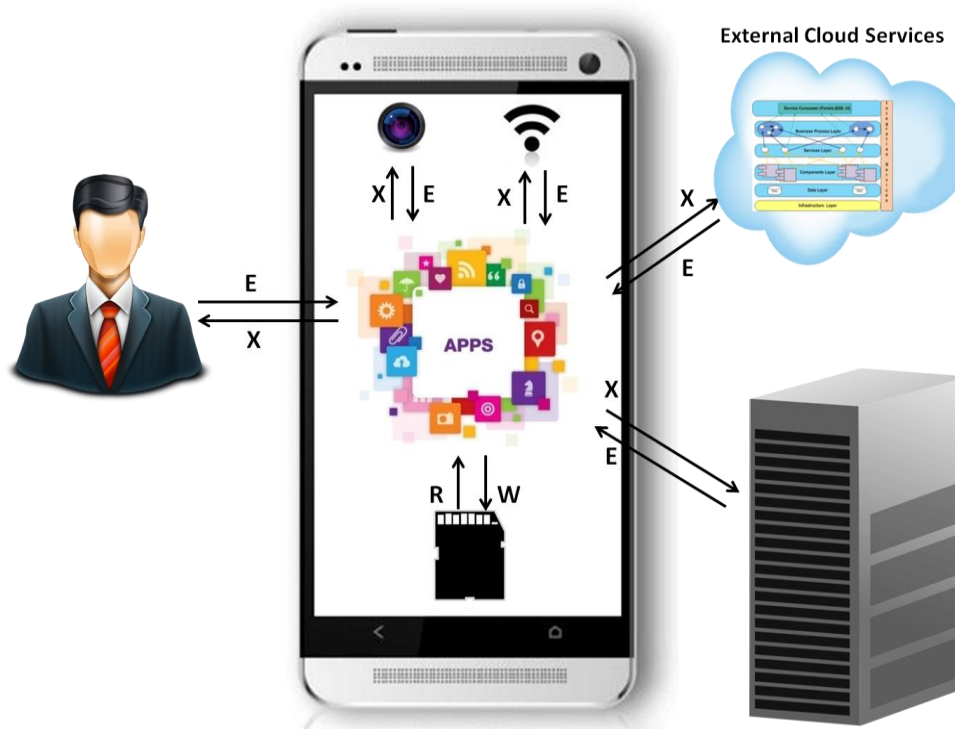
of the COSMIC method





Widely applicable

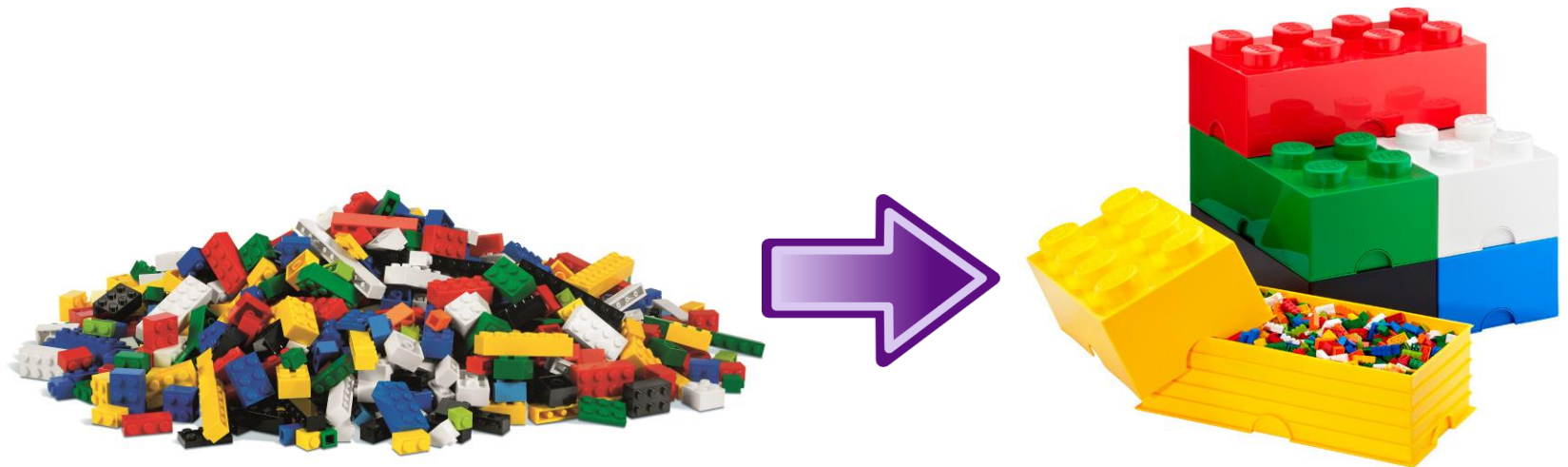
Designed to measure business application, real-time, and infrastructure software in any layer at any level of decomposition.





Early or Rapid Sizing

Number of approaches available to determine size in a **rapid** way, or at an **early** stage (or) with **incomplete** requirements





Big, bigger, biggest . . .

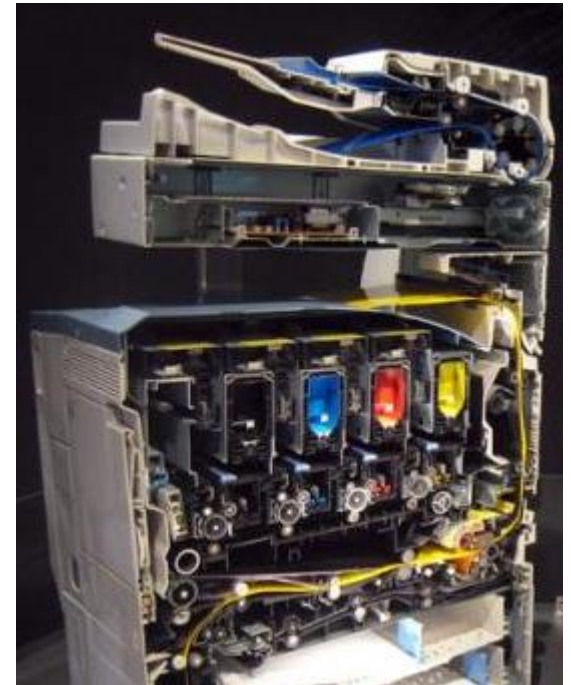
Continuous size scale with no upper bound





Different possible sizes

Allows measurement of different sizes for any one piece of software as 'seen' by different 'functional users' of the software





Architecture independent

Not only bespoke development, but also
COTS datawarehouse





Maintenance included

Both new development and enhancement are counted with the standard method





Easy to learn








Well documented




COSMIC standards (2)

-  [Measurement Manual 4.0.1](#)
-  [ISO Standard for the COSMIC method](#)




Standards – translations (9)

-  [度量手册 – Chinese 4.0.1](#)
-  [Manual de Medición – Spanish 3.0.1](#)
-  [Measurement Manual – Portuguese 3.0.1](#)

Method Overview (11)

-  [Introduction to the COSMIC method of measuring software](#)
-  [Общие представления – Russian 3.0](#)
-  [Quick Reference Guide for sizing Business Application Software](#)

Guidelines (8)

-  [Guideline for Sizing Business Application Software](#)
-  [Guideline for ‘Measurement Strategy Patterns’](#)
-  [Guideline for Early or Rapid COSMIC FSM](#)



Case Studies (9)

-  [Rice Cooker](#)
-  [Course Registration System](#)
-  [C-Registration System](#)




Annual reports (3)

-  [Annual Report 2014](#)
-  [Annual Report 2013](#)
-  [Annual Report 2011](#)

Benchmark data (4)

-  [The Performance of Software Projects](#)
-  [COSMIC/ISBSG Global Benchmarking Initiative](#)
-  [COSMIC/ISBSG Concise Data Collection Questionnaire](#)

Papers (105)

-  [Estimation of IT-Projects](#)
-  [Measure the functional size of a mobile app](#)
-  [The Rice Cooker Revisited](#)

in



g+

f

RG



Well supported

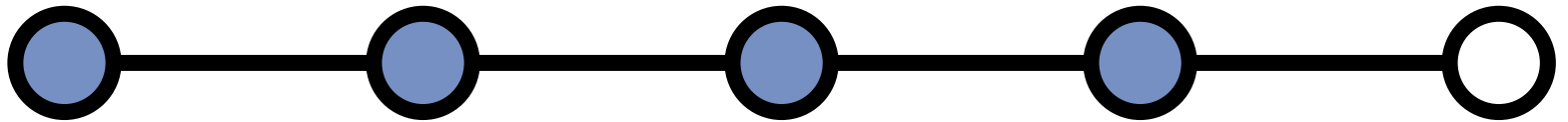


Topic	Voices	Posts	Freshness
Some questions regarding functional changes/ modifications while using Agile Started by: Sameer Majithiya in: COSMIC Size measurement	1	3	1 week, 3 days ago Sameer Majithiya
Regarding the COSMIC FP training & certification Started by: Josleen Joseph in: COSMIC community	2	2	1 week, 3 days ago Frank Vogelesang
Message Exit in software maintenance Started by: Carlos Vazquez in: COSMIC Size measurement	2	2	1 week, 3 days ago Frank Vogelesang
Why is COSMIC only 10% of the ISBSG dataset Started by: Frank Vogelesang in: Benchmarking	2	2	1 week, 4 days ago Karl-Erik Hirviniemi
Calculate synchronous requests Started by: Shantanu Khandelwal in: COSMIC Size measurement	1	9	1 month ago Charles Symons
Great design and the evolution of the COSMIC method Started by: Charles Symons in: COSMIC community	2	2	1 month ago Bruce Reynolds
COSMIC Data Model Started by: Denis Krizanovic in: COSMIC Size measurement	1	1	1 month ago Denis Krizanovic



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Recap

- COSMIC is an open community that operates world-wide
- COSMIC is based on fundamental software engineering principles and is a fully open source method
- You need training and benchmark data to get started
- You become part of an innovative international network



QUESTIONS?

ANSWERS!



Q&A



www.cosmic-sizing.org