YOU SHOULD BUY AN INSURANCE **POLICY**

The need of standards



Client (me)



Engineer (you)

WRONG FUNCTIONALITY



It can be possible that you developed something that I didn't want

QUALITY PROBLEMS



Or it can happen that you developed exactly what I wanted, but not properly done

DELAYS



Very often, independently of what you developed, right or wrong, good or bad, you finished it late according to schedule

LOSSES

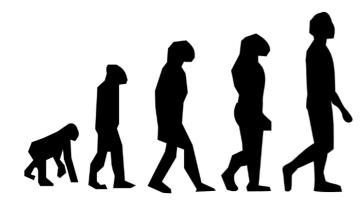


And, even more often, due to the above topics, you got out of budget

ARE YOU USING THE BEST PRACTICES OTHER USE TO PRODUCE ANY SYSTEM?

Life cycle

System lifecycle



Process Groups Technical Processes Agreement Processes Organizational Project-Enabling Tailoring

Concept Development Production	Retirement poort
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System Life Cycle Processes Technical Agreement **Processes** Management **Processes**

Acquisition Process (Clause 6.1.1)

(Clause 6.1.2)

Organizational Project-Enabling **Processes**

(Clause 6.2.1) Infrastructure

(Clause 6.2.2) Portfolio (Clause 6.2.3)

Human Resource (Clause 6.2.4) Quality Management Process

(Clause 6.2.5) Knowledge Management Process (Clause 6.2.6)

Project Planning Process (Clause 6.3.1)

Project Assessment and Control Process (Clause 6.3.2) Decision Manage

Process (Clause 6.3.3) Risk Management

Process (Clause 6.3.4) Configuration nagement Process (Clause 6.3.5)

rmation Manage (Clause 6.3.6)

Quality Assurance Process (Clause 6.3.8)

Technical **Processes**

Business or Mission Analysis Process (Clause 6.4.1)

Stakeholder Needs & Requirements Definition Process (Clause 6.4.2)

System Requirements Definition Process (Clause 6.4.3)

Architecture **Definition Process** (Clause 6.4.4) Design Definition

Process (Clause 6.4.5) System Analysis (Clause 6.4.6)

Implementation Proces (Clause 6.4.7)

Integration Process (Clause 6.4.8)

(Clause 6.4.9)

Transition Process Validation Process

(Clause 6.4.11) Operation Proces

Maintenance Process (Clause 6.4.13)

AGREEMENT PROCESSES



ORGANIZATIONAL PROJECT-ENABLING **PROCESES**



TECHNICAL MANAGEMENT **PROCESSES**



TECHNICAL



"Source: ISO/IEC/IEEE 15288:2015 [] Systems and software engineering -- System life cycle processes". Enlace a: http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=63711

And many others...

IEEE SA - 12207-2008 - Systems and software engineering
-- Software life cycle processes
IEEE SA - 29148-2011 - Systems and software engineering -Life cycle processes -- Requirements engineering
IEEE SA - 15288-2015 - ISO/IEC/IEEE International Standard --Systems and software engineering -- System life cycle processes RTC DO-178C Software Considerations in Airborne Systems and Equipment Certification ESA - Software Engineering Standards" ISBN 0-13-106568-8

The system (as a whole) has always a life-cycle: the System Life cycle

Are you aware of standards?

Juan Llorens - UC3M