



XI Międzynarodowa Konferencja „QUALITY PRODUCTION IMPROVEMENT”

**Polepszenie procesu przygotowania produkcji
przy wykorzystaniu systemu E-CNC**

Production Improvement using e-CNC System

(... not only for aviation industries)



Dariusz Karpisz

Marcin Grabowski

Wydział Mechaniczny,
Politechnika Krakowska im.T.Kościuszki



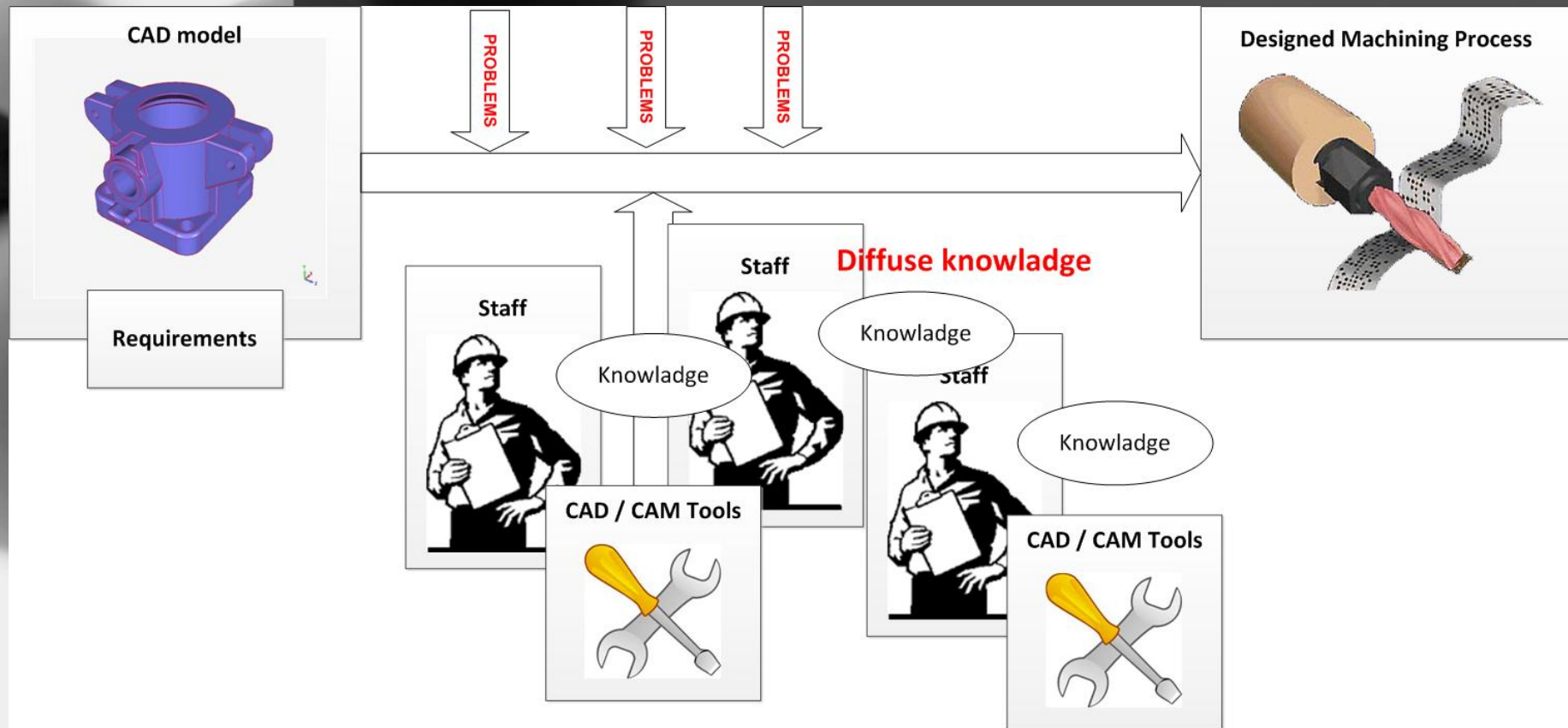
1. Motivation to develop E-CNC System
2. The Algorithm of decision process

Motivation to develop E-CNC System



Fot. DK UH-60 Black Hawk

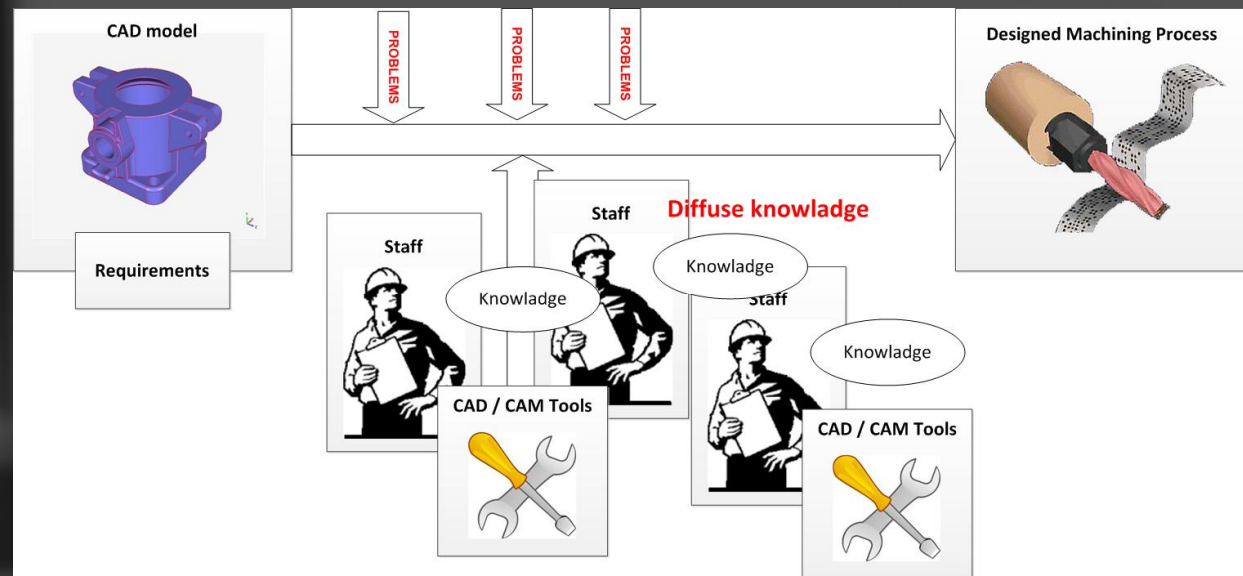
Standard process flow to preparing production of any element - choosing of: materials, tools, machines, fastening system (clamping) ...



PROBLEMS:

- Knowledge – know-how in one (or many) staff (master technolog)
- Diffused databases of tools and others ...
- Catalogs searching TIME

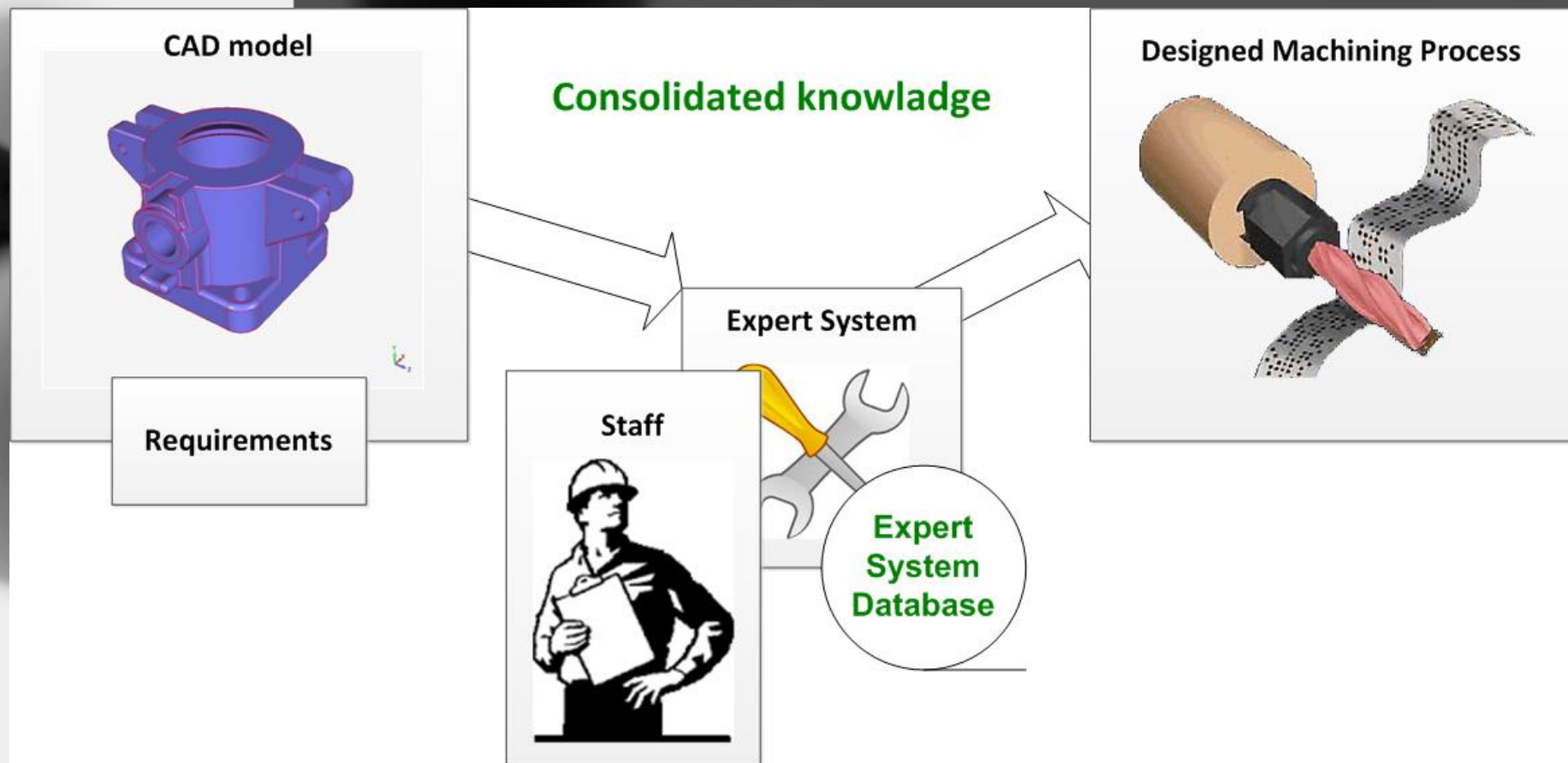
DIFFUSED KNOWLEDGE, PREPARATION TIME



The aim of the project is to develop an information system for the design of the machining process, gathering information about the tools, machine tools, fastening systems and workpiece materials in its database. An expert system will provide quick analysis of various variants of the technological process modeling and simulation processes while identifying optimal solutions and the criteria for their application. The system enables selection of factors parameters and lets to assess the economic and technological criteria of the planned machining processes, creating its own database at the same time.

After implementation of E-CNC:

TECHNOLOGICAL HEAVEN ;)

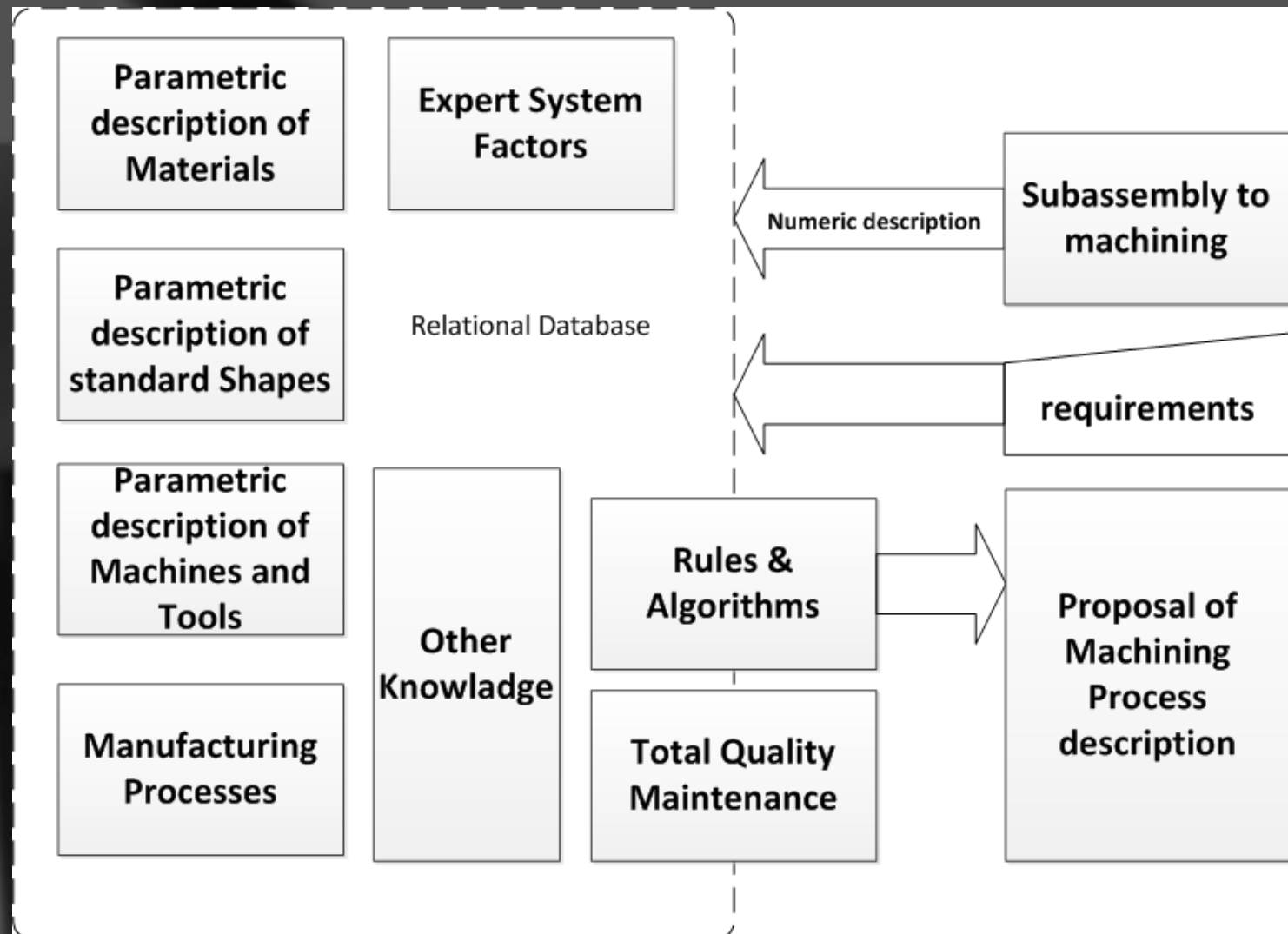


The Algorithm of decision process

Fot. DK AH-64D Longbow Radar Antenna



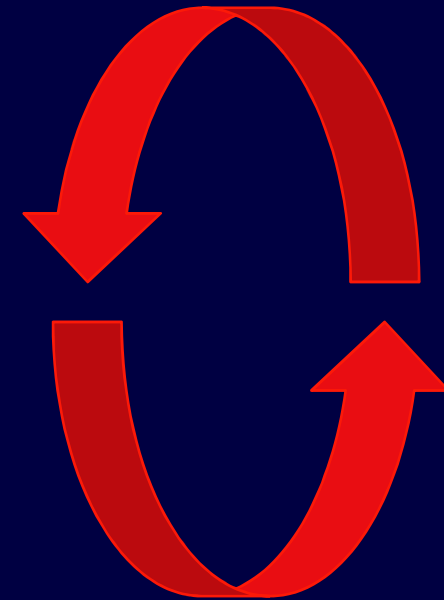
A System concept:



Complicated?

The flow:

1. requirements (+NX),
2. workpiece
3. machine
4. tools
5. clamping
6. checking in CAD/CAM
7. checking of factors (eg. Ra – roughness, tool live time, cutting forces, performance, ...)
8. In all steps we can go to others steps



Acknowledgment



UNIA EUROPEJSKA
EUROPEJSKI FUNDUSZ
ROZWOJU REGIONALNEGO



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Politechnika Krakowska
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Fot. RAPORT 08/16

Dariusz Karpisz, Marcin Grabowski

XI. QUALITY PRODUCTION IMPROVEMENT

Dziękuję za uwagę



Dariusz Karpisz
dkarpisz@pk.edu.pl, drejku@poczta.onet.pl