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[3, . 55] «   -   —   ,

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. 17], [5])   :

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[1, . 30 - 31], [8, . 30]

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[8, . 15], —

BPMN (*), EPC* (с

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,   [8, . 15]

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.   SADT (Structured Analysis and Design

Technique)   IDEF (Integration Definition for Functional Modeling).

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[8, . 17]   c   -

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-            .   -

UML (Unified Modeling Language).

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[8, . 18]

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BPMN (Business Process Model and Notation), ARIS (Architecture of

Integrated Information Systems), EPC (   ).

1.3.2.

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,   [14, . 15] $C = (P, T, I, O)$,

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1. P;

2. T;

3. I;

4. O.

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.   [14, . 18]

$G = V, A,$ -

$v_i \in V$ $a_i \in A.$

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1.   (flow objects);

2.   (data);

3.   (connecting objects);

4.   (swimlane);

5.   (artifacts).

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YAWL *YAWL (Yet Another Workflow Language)* -

(Aalst) (Hofstede) 2003

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[16, c. 3] :

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YAWL, [16, . 10], -

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. WfMC [17, . 9] -

(Workflow) ,

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(workflow engine).

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Workflow,   [19,

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Workflow,   [19],   -

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Cunningham LLP   Zagiel S.A.,   [20],

[21].   Canningham LLP

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Zagiel S.A.

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1.4.2. -

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[12, c. 91 - 93]),   :

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[35].

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—eTOM [45]   SCOR [46]

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APQC [47].

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Gartner Inc. (. [48]) Forrester Research [49]) 2009 – 2013 .

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[48], [49],

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The Forrester Wave [50], [51], [52], [53],

Gartner Magic Quadrant [54], [55], [56], [57].

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, : PegaSystems, IBM, Appian, Progress Software, Metastorm

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, : Fujitsu, EMC, Global360, Bosh Software Innovations

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: Appian BPM Suite[58], OpenText MBPM

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[59], Cordys BPMS [60], Pegasystems BPM [61], Fujitsu Interstage BPM [62], Tibco Active Matrix BPM [63];

: jBPM [64], BonitaBPM [65], Taverna Workflow [66], Activiti BPM [67], Pegasus [68], Intalio BPMS [69].

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,   OpenText (Cordys BPMS, MBPM), Appian.   -

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(Taverna Workflow, Pegasus),

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(jBPM, Activiti)

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TOGAF , -

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GERAM [72].   GERAM

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Appian   OpenText MBPM,   -

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VERAM [73],   GERAM.

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Подсистема кооперации

Проектировать
бизнес-
деятельности

Член
виртуальной
команды

Решать конфликты
выполнения
процесса

Член
виртуальной
команды

Улучшать качество
процессов
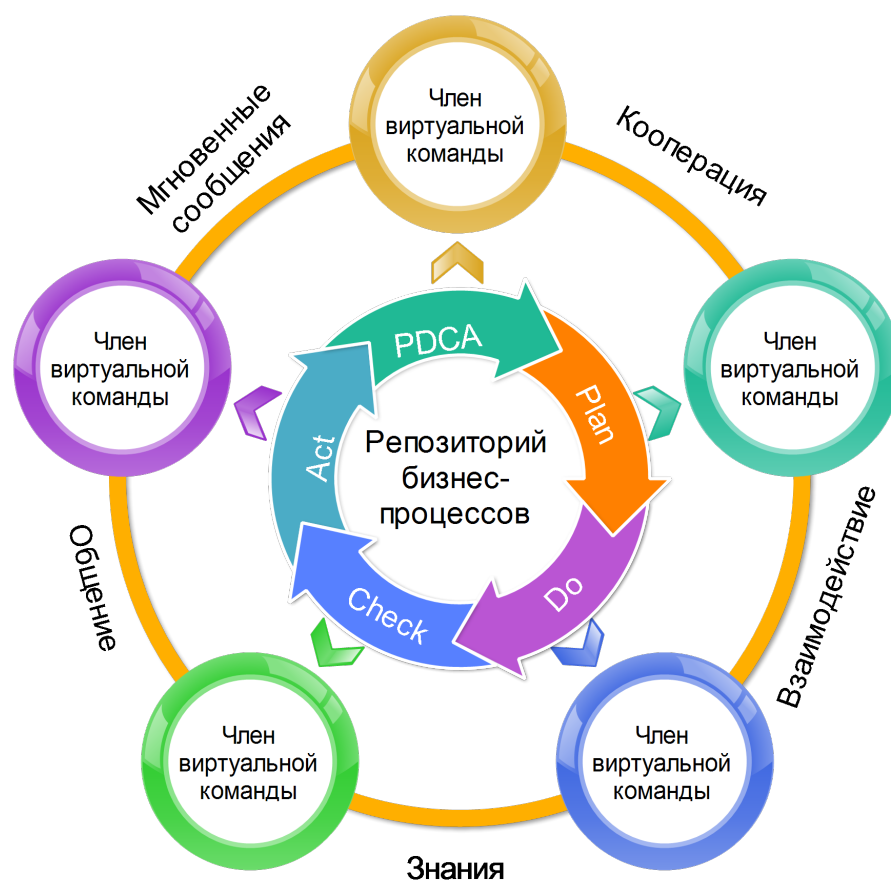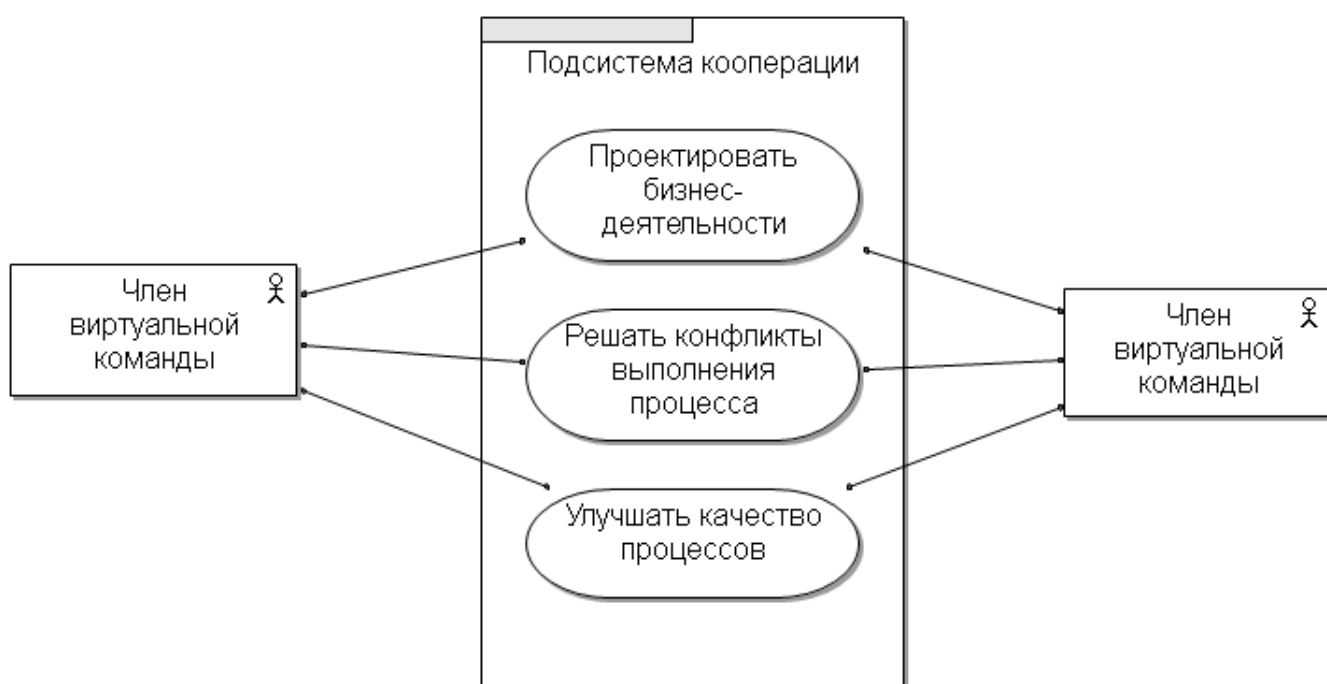
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jBPM　　Activiti.

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Activiti.　　　　　　　　Activi

(BPMN 2.0 XML),　　-

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jBPM

-          ,   -   jBoss

Drools,   XML   jPDL.   Activiti,   -

[67]

Alfresco [74],

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Activiti   Apache,   -

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Activiti.   Activiti   -

-                    (Activiti

Modeler, Activiti Designer)   -   -

(Activiti Engine).   . **??**

Activiti.
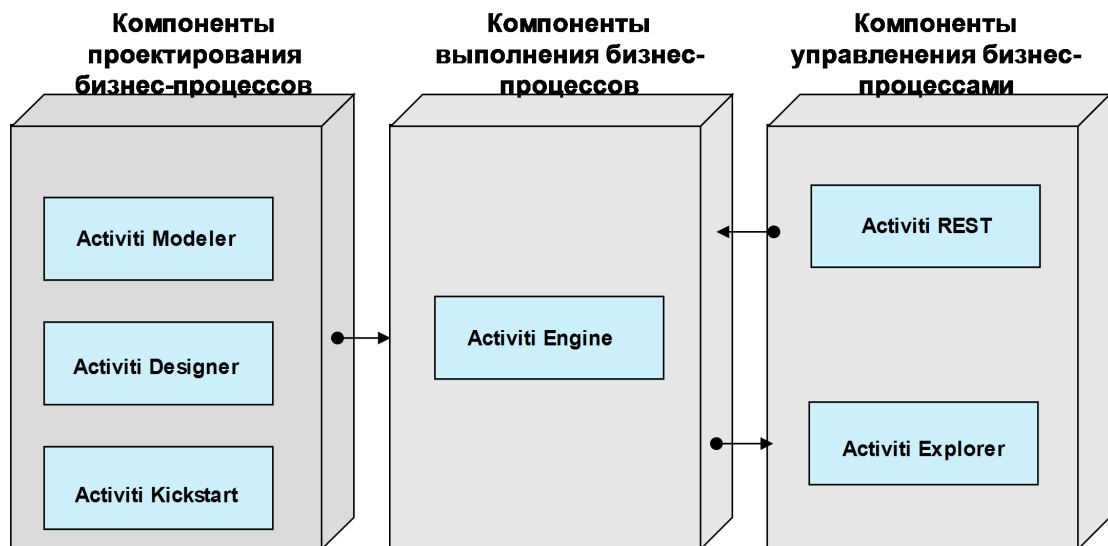
. 3.3. "   Activiti [67]

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Eclipse IDE.   -

BPMN 2.0 XML.

BPMN XML,

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XMPP.

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XMPP

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Openfire.   XMPP   -

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OpenFire [79].

OpenFire   -

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LDAP,

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Open Source Apache,

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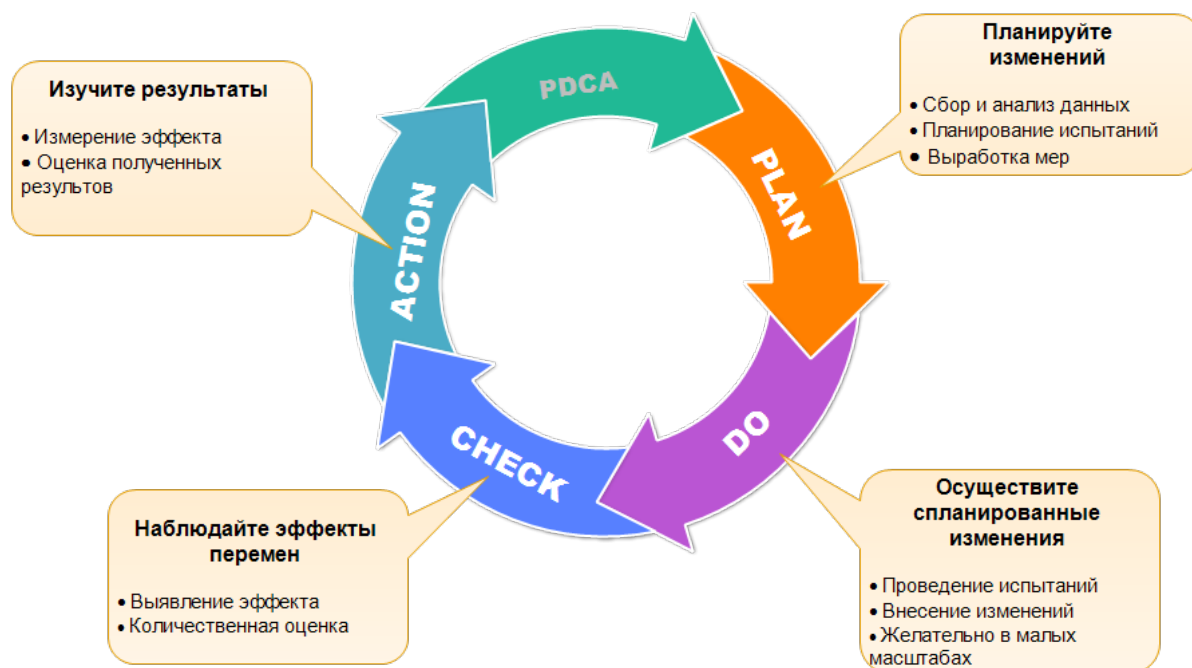
Рис. 1. "   -   [42, с. 97]

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	Des	Org	Ctrl	Res
Appian BPM Suite	9	8	9	7
OpenText MBPM	8	7	8	10
Cordys BPMS	10	8	6	9
Pegasystems BPM	10	9	10	9
Fujitsu Interstage BPM	7	7	6	5
Tibco Active Matrix BPM	6	10	9	9
jBPM	8	7	8	7
BonitaBPM	8	8	10	7
Taverna Workflow	5	10	6	7
Activiti BPM	7	6	7	5
Pegasus	5	10	8	8
Intalio BPMS	9	6	8	5

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	Des	**Org**	**Ctrl**	**Res**
Appian BPM Suite	8	5	8	6
OpenText MBPM	7	8	6	7
Cordys BPMS	3	10	3	1
Pegasystems BPM	4	10	5	9
Fujitsu Interstage BPM	8	5	8	8
Tibco Active Matrix BPM	0	1	2	0
jBPM	2	6	2	0
BonitaBPM	7	5	3	3
Taverna Workflow	3	2	4	0
Activiti BPM	0	2	0	2
Pegasus	1	0	1	0
Intalio BPMS	1	1	3	1

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KM ;

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