frontend/src/components/dashboard/DashboardDirector.jsx

```jsx
 1   /**
 2    * Dashboard DIRECTOR (Level 5) - Dashboard für Geschäftsführung
 3    *
 4    * Dashboard executivo completo:
 5    * - Visão geral de toda a empresa
 6    * - Todos valores financeiros
 7    * - Relatórios executivos completos
 8    * - Múltiplos gráficos estratégicos
 9    * - Análise por departamento
10    *
11    * Vollständiges Executive Dashboard:
12    * - Unternehmensweite Übersicht
13    * - Alle Finanzwerte
14    * - Vollständige Executive-Berichte
15    * - Mehrere strategische Diagramme
16    * - Analyse nach Abteilung
17    */
18
19   import { useState, useEffect } from 'react';
20   import {
21     Box,
22     Card,
23     CardContent,
24     Typography,
25     Grid,
26     CircularProgress,
27     Alert,
28     Divider,
29     Chip
30   } from '@mui/material';
31   import {
32     Description as ContractIcon,
33     Warning as WarningIcon,
34     Notifications as AlertIcon,
35     CheckCircle as ApprovalIcon,
36     AttachMoney as MoneyIcon,
37     People as PeopleIcon,
38     Business as BusinessIcon,
39     TrendingUp as TrendIcon
40   } from '@mui/icons-material';
41   import {
42     PieChart, Pie, Cell, BarChart, Bar, LineChart, Line,
43     XAxis, YAxis, CartesianGrid, ResponsiveContainer, Legend, Tooltip
44   } from 'recharts';
45   import dashboardApi from '../../services/dashboardApi';
46
47   const COLORS = ['#2563EB', '#10B981', '#F59E0B', '#EF4444', '#6B7280', '#8B5CF6',
     '#EC4899'];
48
49   function StatCard({ title, value, subtitle, icon: Icon, color = 'primary', isCurrency =
     false }) {
50     const formattedValue = isCurrency && value !== null && value !== undefined
```

```
51        ? new Intl.NumberFormat('de-DE', { style: 'currency', currency: 'EUR' }).format(value)
52        : value;
53
54      return (
55        <Card elevation={3} sx={{ height: '100%' }}>
56          <CardContent>
57            <Box sx={{ display: 'flex', justifyContent: 'space-between', alignItems: 'flex-
   start', mb: 2 }}>
58              <Typography variant="h6" color="text.secondary" sx={{ fontWeight: 500, fontSize:
   '0.95rem' }}>
59                {title}
60              </Typography>
61              <Icon sx={{ color: `${color}.main`, fontSize: 36 }} />
62            </Box>
63            <Typography variant="h3" sx={{ fontWeight: 700, mb: 1, color: `${color}.main`,
   fontSize: isCurrency ? '1.5rem' : '2.25rem' }}>
64              {formattedValue !== null && formattedValue !== undefined ? formattedValue : '-'}
65            </Typography>
66            {subtitle && (
67              <Typography variant="body2" color="text.secondary">
68                {subtitle}
69              </Typography>
70            )}
71          </CardContent>
72        </Card>
73      );
74    }
75
76    export default function DashboardDirector() {
77      const [stats, setStats] = useState(null);
78      const [loading, setLoading] = useState(true);
79      const [error, setError] = useState(null);
80
81      useEffect(() => {
82        const fetchStats = async () => {
83          try {
84            setLoading(true);
85            setError(null);
86            const data = await dashboardApi.getStats();
87            setStats(data);
88          } catch (err) {
89            console.error('Fehler beim Laden der Statistiken:', err);
90            setError('Fehler beim Laden der Dashboard-Statistiken.');
91          } finally {
92            setLoading(false);
93          }
94        };
95
96        fetchStats();
97      }, []);
98
99      if (loading) {
100       return (
```

```jsx
101        <Box sx={{ display: 'flex', justifyContent: 'center', alignItems: 'center',
    minHeight: '60vh' }}>
102          <CircularProgress size={60} />
103        </Box>
104      );
105    }
106
107    if (error) {
108      return (
109        <Box sx={{ p: 3 }}>
110          <Alert severity="error">{error}</Alert>
111        </Box>
112      );
113    }
114
115    const statusData = stats?.contracts_by_status
116      ? Object.entries(stats.contracts_by_status).map(([status, count]) => ({
117          name: status,
118          value: count
119        }))
120      : [];
121
122    const typeData = stats?.contracts_by_type
123      ? Object.entries(stats.contracts_by_type).map(([type, count]) => ({
124          name: type,
125          quantity: count
126        }))
127      : [];
128
129    const departmentData = stats?.contracts_by_department
130      ? Object.entries(stats.contracts_by_department).map(([dept, count]) => ({
131          departamento: dept,
132          contracts: count
133        }))
134      : [];
135
136    return (
137      <Box sx={{ p: 3, width: '100%', mx: 'auto' }}>
138        {/* Executive Header */}
139        <Box sx={{ display: 'flex', justifyContent: 'space-between', alignItems: 'center',
    mb: 3 }}>
140          <Box>
141            <Typography variant="h4" sx={{ mb: 0.5, fontWeight: 600 }}>
142              Executive Dashboard
143            </Typography>
144            <Typography variant="body1" color="text.secondary">
145              Company Overview
146            </Typography>
147          </Box>
148          <Chip
149            label="Director"
150            color="primary"
151            icon={<BusinessIcon />}
152          />
```

```jsx
153          </Box>
154
155          {/* Main KPIs - Row 1 */}
156          <Grid container spacing={3} sx={{ mb: 3 }}>
157            <Grid item xs={12} sm={6} md={3}>
158              <StatCard
159                title="Total Contracts"
160                value={stats?.total_contracts}
161                subtitle="Across entire company"
162                icon={ContractIcon}
163                color="primary"
164              />
165            </Grid>
166
167            <Grid item xs={12} sm={6} md={3}>
168              <StatCard
169                title="Active Contracts"
170                value={stats?.active_contracts}
171                subtitle="In progress"
172                icon={TrendIcon}
173                color="success"
174              />
175            </Grid>
176
177            <Grid item xs={12} sm={6} md={3}>
178              <StatCard
179                title="Total Monthly Value"
180                value={stats?.monthly_value}
181                subtitle="Recurring revenue"
182                icon={MoneyIcon}
183                color="success"
184                isCurrency={true}
185              />
186            </Grid>
187
188            <Grid item xs={12} sm={6} md={3}>
189              <StatCard
190                title="Total Users"
191                value={stats?.total_users}
192                subtitle="On platform"
193                icon={PeopleIcon}
194                color="info"
195              />
196            </Grid>
197          </Grid>
198
199          {/* Secondary KPIs - Row 2 */}
200          <Grid container spacing={3} sx={{ mb: 4 }}>
201            <Grid item xs={12} sm={6} md={3}>
202              <StatCard
203                title="Expiring in 30 Days"
204                value={stats?.expiring_30_days}
205                subtitle="Immediate attention"
206                icon={WarningIcon}
```

```jsx
207                    color="warning"
208                  />
209              </Grid>
210
211            <Grid item xs={12} sm={6} md={3}>
212              <StatCard
213                title="Expiring in 90 Days"
214                value={stats?.expiring_90_days}
215                subtitle="Planning"
216                icon={WarningIcon}
217                color="warning"
218              />
219            </Grid>
220
221            <Grid item xs={12} sm={6} md={3}>
222              <StatCard
223                title="Pending Alerts"
224                value={stats?.unread_alerts}
225                subtitle={`${stats?.total_alerts || 0} total`}
226                icon={AlertIcon}
227                color="error"
228              />
229            </Grid>
230
231            <Grid item xs={12} sm={6} md={3}>
232              <StatCard
233                title="Approvals"
234                value={stats?.pending_approvals}
235                subtitle="Awaiting decision"
236                icon={ApprovalIcon}
237                color="info"
238              />
239            </Grid>
240          </Grid>
241
242          {/* Executive Charts */}
243          <Grid container spacing={3}>
244            {/* Contracts by Department */}
245            <Grid item xs={12} md={8} lg={8}>
246              <Card elevation={3} sx={{ minHeight: 'auto', width: '100%', maxWidth: '100%' }}>
247                <CardContent sx={{ height: '100%', p: 3, minWidth: 0 }}>
248                  <Typography variant="h6" sx={{ mb: 2, fontWeight: 600 }}>
249                    Contracts by Department
250                  </Typography>
251                  <Divider sx={{ mb: 2 }} />
252                  {departmentData.length > 0 ? (
253                    <Box sx={{ width: '100%', minWidth: 0, overflow: 'visible' }}>
254                      <ResponsiveContainer width="100%" height="auto">
255                        <BarChart data={departmentData} margin={{ top: 5, right: 20, left: 0,
     bottom: 5 }}>
256                          <CartesianGrid strokeDasharray="3 3" />
257                          <XAxis dataKey="departamento" angle={-15} textAnchor="end" height=
     {80} />
258                          <YAxis />
```

```jsx
259                    <Tooltip />
260                    <Legend />
261                    <Bar dataKey="contracts" fill="#2563EB" name="Contracts" />
262                  </BarChart>
263                </ResponsiveContainer>
264              </Box>
265            ) : (
266              <Typography variant="body2" color="text.secondary">No data
     available</Typography>
267            )}
268          </CardContent>
269        </Card>
270      </Grid>
271
272      {/* Contracts by Status */}
273      <Grid item xs={12} md={4} lg={4}>
274        <Card elevation={3} sx={{ minHeight: 'auto', width: '100%', minWidth: 0 }}>
275          <CardContent sx={{
276            height: '100%',
277            p: 3,
278            minWidth: 0,
279            display: 'flex',
280            flexDirection: 'column',
281            alignItems: 'stretch'
282          }}>
283            <Typography variant="h6" sx={{ mb: 2, fontWeight: 600 }}>
284              Distribution by Status
285            </Typography>
286            <Divider sx={{ mb: 2 }} />
287            {statusData.length > 0 ? (
288              <Box
289                ref={(el) => {
290                  if (el) {
291                    console.log('Distribution by Status container width:',
     el.getBoundingClientRect().width);
292                  }
293                }}
294                sx={{
295                  flexGrow: 1,
296                  minWidth: 0,
297                  width: '100%',
298                  alignSelf: 'stretch'
299                }}
300              >
301                <ResponsiveContainer width="100%" height="auto">
302                  <PieChart>
303                    <Pie
304                      data={statusData}
305                      dataKey="value"
306                      cx="50%"
307                      cy="50%"
308                      outerRadius={90}
309                      label={false}
310                      labelLine={false}
```

```
311                          fill="#8884d8"
312 . . . . . . . . . . . . . . . . . . . . . >
313                          {statusData.map((entry, index) => (
314                            <Cell key={`cell-${index}`} fill={COLORS[index % COLORS.length]}
    />
315                          ))}
316                        </Pie>
317                        <Tooltip />
318                        <Legend verticalAlign="bottom" height={36} />
319                      </PieChart>
320                    </ResponsiveContainer>
321                  </Box>
322                ) : (
323                  <Typography variant="body2" color="text.secondary">No data
    available</Typography>
324                )}
325              </CardContent>
326            </Card>
327          </Grid>
328
329          {/* Contracts by Type */}
330          <Grid item xs={12} md={8} lg={8}>
331            <Card elevation={3} sx={{ minHeight: 480, width: '100%', maxWidth: '100%' }}>
332              <CardContent sx={{ height: '100%', p: 3, minWidth: 0 }}>
333                <Typography variant="h6" sx={{ mb: 2, fontWeight: 600 }}>
334                  Contract Types
335                </Typography>
336                <Divider sx={{ mb: 2 }} />
337                {typeData.length > 0 ? (
338                  <Box sx={{ width: '100%', minWidth: 0, overflow: 'visible' }}>
339                    <ResponsiveContainer width="100%" height="auto">
340                      <BarChart data={typeData} layout="vertical" margin={{ top: 5, right:
    20, left: 10, bottom: 5 }}>
341                        <CartesianGrid strokeDasharray="3 3" />
342                        <XAxis type="number" />
343                        <YAxis dataKey="name" type="category" width={100} />
344                        <Tooltip />
345                        <Legend />
346                        <Bar dataKey="quantity" fill="#10B981" name="Quantity" />
347                      </BarChart>
348                    </ResponsiveContainer>
349                  </Box>
350                ) : (
351                  <Typography variant="body2" color="text.secondary">No data
    available</Typography>
352                )}
353              </CardContent>
354            </Card>
355          </Grid>
356
357          {/* Permissions and Information */}
358          <Grid item xs={12} md={4} lg={4}>
359            <Card elevation={1}>
360              <CardContent>
```

```jsx
361                    <Typography variant="h6" sx={{ mb: 2, fontWeight: 600 }}>
362                      Complete Executive Access
363                    </Typography>
364                    <Divider sx={{ mb: 2 }} />
365                    <Grid container spacing={1}>
366                      <Grid item xs={12}>
367                        <Typography variant="body2" color="text.secondary" paragraph>
368                          ✅ View all company contracts
369                        </Typography>
370                        <Typography variant="body2" color="text.secondary" paragraph>
371                          ✅ Approve strategic contracts
372                        </Typography>
373                        <Typography variant="body2" color="text.secondary" paragraph>
374                          ✅ Access all reports with financial values
375                        </Typography>
376                        <Typography variant="body2" color="text.secondary" paragraph>
377                          ✅ Manage users and roles in all sectors
378                        </Typography>
379                        <Typography variant="body2" color="text.secondary" paragraph>
380                          ✅ Define all access levels (1-5)
381                        </Typography>
382                      </Grid>
383                    </Grid>
384                  </CardContent>
385                </Card>
386              </Grid>
387            </Grid>
388          </Box>
389       );
390     }
391
```